

Material Safety Data Sheet

Version 3.0
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Peracetic acid solution

Product Number : 269336
Brand : Sigma-Aldrich

Company : Sigma-Aldrich Canada, Ltd
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CANADA

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Peroxyacetic acid

Formula : $C_2H_4O_3$

CAS-No.	EC-No.	Index-No.	Concentration
Acetic acid			
64-19-7	200-580-7	607-002-00-6	40 %
peracetic acid ... %			
79-21-0	201-186-8	607-094-00-8	35.5 %
Water			
7732-18-5	231-791-2	-	17 %
Hydrogen peroxide			
7722-84-1	231-765-0	008-003-00-9	6.5 %
Sulfuric acid			
7664-93-9	231-639-5	016-020-00-8	1 %

3. HAZARDS IDENTIFICATION**Emergency Overview****Target Organs**

Teeth., Kidney, Eyes, Skin, Respiratory system, Lungs

WHMIS Classification

C Oxidizing Material
D1A
D1B

Oxidizer
Highly toxic by inhalation
Toxic by ingestion

D2B
E

Skin sensitiser
Corrosive

HMIS Classification

Health hazard:	4
Chronic Health Hazard:	*
Flammability:	0
Physical hazards:	1

Potential Health Effects

Inhalation	May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	Harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.
Ingestion	Toxic if swallowed. Causes burns.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Keep away from combustible material.

Storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 - 8 °C

Light sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
Acetic acid	64-19-7	TWA	10 ppm	2006-11-29	Canada. British Columbia OEL
		STEL	15 ppm	2006-11-29	Canada. British Columbia OEL
		TWAE V	10 ppm 25 mg/m3	2005-12-17	Canada. Ontario OELs
		STEV	15 ppm 37 mg/m3	2005-12-17	Canada. Ontario OELs
		TWA	10 ppm 25 mg/m3	2007-01-01	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required				
		STEL	15 ppm 37 mg/m3	2007-01-01	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required				
		TWAE V	10 ppm 25 mg/m3	2006-12-29	Canada. Quebec OELs
		STEV	15 ppm 37 mg/m3	2006-12-29	Canada. Quebec OELs
Hydrogen peroxide	7722-84-1	TWA	1 ppm	2006-11-29	Canada. British Columbia OEL
		TWAE V	1 ppm 1.4 mg/m3	2005-12-17	Canada. Ontario OELs
		TWA	1 ppm 1.4 mg/m3	2007-01-01	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)

		TWAE V	1 ppm 1.4 mg/m3	2006-12-29	Canada. Quebec OELs
Sulfuric acid	7664-93-9	TWA	0.2 mg/m3	2004-08-01	Canada. British Columbia OEL
Remarks	ACGIH "A2" applies to those substances that are considered suspected human carcinogens. IARC "1" applies to substances categorized as carcinogenic to humans, and used when there is sufficient evidence of carcinogenicity in humans. Refers to sulfuric acid contained in strong inorganic acid mists. Note: This OEL has been suspended. See OHS Guideline 5.84-11.				
		TWAE V	0.2 mg/m3	2005-11-28	Canada. Ontario OELs
		STEV	3 mg/m3	2005-02-03	Canada. Ontario OELs
		STEL	3 mg/m3	2004-04-30	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	1 mg/m3	2004-04-30	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	1 mg/m3	2000-01-12	Canada. Quebec OELs
		STEL	3 mg/m3	2000-01-12	Canada. Quebec OELs

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum).

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	colourless
Odour	pungent

Safety data

pH	< 1.0
Melting point	-44 °C (-47 °F)
Boiling point	107 °C (225 °F) at 1,013 hPa (760 mmHg)
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	27 hPa (20 mmHg) at 25 °C (77 °F)
Density	1.130 g/cm ³ at 20 °C (68 °F)
Water solubility	soluble

10. STABILITY AND REACTIVITY**Storage stability**

Stable under recommended storage conditions.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

no data available

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrogen peroxide)

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

Potential Health Effects

Inhalation	May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	Harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.
Ingestion	Toxic if swallowed. Causes burns.
Target Organs	Teeth., Kidney, Eyes, Skin, Respiratory system, Lungs,

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

no data available

Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS**Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

UN-Number: 3109 Class: 5.2 (8) Packing group: II
Proper shipping name: Organic peroxide type F, liquid (Peroxyacetic acid, type F, stabilized)
Reportable Quantity (RQ): 12500 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN-Number: 3109 Class: 5.2 (8) EMS-No: F-J, S-R
Proper shipping name: ORGANIC PEROXIDE TYPE F, LIQUID (PEROXYACETIC ACID)
Marine pollutant: No

IATA

UN-Number: 3109 Class: 5.2 (8)
Proper shipping name: Organic peroxide type F, liquid (Peroxyacetic acid, type F)

15. REGULATORY INFORMATION**DSL Status**

All components of this product are on the Canadian DSL list.

WHMIS Classification

C	Oxidizing Material	Oxidizer
D1A		Highly toxic by inhalation
D1B		Toxic by ingestion
D2B		Skin sensitiser
E		Corrosive

16. OTHER INFORMATION**Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.