

## Material Safety Data Sheet

Version 4.0

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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sodium perchlorate

Product Number : 410241

Brand : Sigma-Aldrich

Company : Sigma-Aldrich Canada, Ltd  
2149 Winston Park Drive  
OAKVILLE ON L6H 6J8  
CANADA

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Emergency Phone # : 800-424-9300

## 2. HAZARDS IDENTIFICATION

## Emergency Overview

## Target Organs

Thyroid., Blood

## WHMIS Classification

C Oxidizing Material Oxidizer

## GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H271 May cause fire or explosion; strong oxidiser.

H303 May be harmful if swallowed.

Precautionary statement(s)

P220 Keep/Store away from clothing/ combustible materials.

## HMIS Classification

Health hazard: 1

Chronic Health Hazard: \*

Flammability: 0

Physical hazards: 2

## Potential Health Effects

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Ingestion** May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula :  $\text{ClNaO}_4$

Molecular Weight : 122.44 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
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<b>Sodium perchlorate</b>			
7601-89-0	231-511-9	017-010-00-6	-

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#### 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**

Wash off with soap and plenty of water. Consult a physician.

##### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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#### 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.

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#### 6. ACCIDENTAL RELEASE MEASURES

##### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

##### **Environmental precautions**

Do not let product enter drains.

##### **Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

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#### 7. HANDLING AND STORAGE

##### **Precautions for safe handling**

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from combustible material.

##### **Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

strongly hygroscopic

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#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

##### **Personal protective equipment**

##### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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. For prolonged or repeated contact use protective gloves.

**Eye protection**

Safety glasses with side-shields conforming to EN166

**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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form	flakes
Colour	white

**Safety data**

pH	no data available
Melting point	468 °C (874 °F) - lit.
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Density	2.499 g/cm <sup>3</sup>
Water solubility	soluble

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**10. STABILITY AND REACTIVITY****Chemical stability**

Stable under recommended storage conditions.

**Conditions to avoid**

no data available

**Materials to avoid**

Organic materials, Powdered metals, Organic materials, Strong acids, Forms shock-sensitive mixtures with certain other materials., Powdered metals, Magnesium

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas, Sodium oxides

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**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

LD50 Oral - rat - 2,100 mg/kg

Remarks: Behavioral:Excitement. Lungs, Thorax, or Respiration:Dyspnea. Nutritional and Gross Metabolic:Changes in:Body temperature decrease.

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure (GHS)**

no data available

**Specific target organ toxicity - repeated exposure (GHS)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

**Signs and Symptoms of Exposure**

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.

**Additional Information**

RTECS: SC9800000

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**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

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**13. DISPOSAL CONSIDERATIONS****Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

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

UN-Number: 1502 Class: 5.1 Packing group: II

Proper shipping name: Sodium perchlorate

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG**

UN-Number: 1502 Class: 5.1

Packing group: II

EMS-No: F-H, S-Q

Proper shipping name: SODIUM PERCHLORATE

Marine pollutant: No

**IATA**

UN-Number: 1502 Class: 5.1

Packing group: II

Proper shipping name: Sodium perchlorate

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**15. REGULATORY INFORMATION**

**DSL Status**

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

**WHMIS Classification**

C

Oxidizing Material

Oxidizer

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**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.

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