

# SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.1  
Creation Date: July 15, 2019  
Revision Date: April 16, 2024

## SECTION 1: Identification

### 1.1 GHS Product identifier

**Product name** 7601-89-0 97F4MTY3VA Sodium perchlorate Perchloric acid, sodium salt Perchloric acid, sodium salt (1:1) EINECS 231-511-9 HSDB 5038 Natriumperchloraat [Dutch] Natriumperchlorat [German] Perchlorate de sodium [French] Sodio (perclorato di) [Italian] Sodium (perchlorate de) [French] CPL 46 Natriumperchloraat Natriumperchlorat Perchlorate de sodium Sodio (perclorato di) Sodium (perchlorate de) UNII-97F4MTY3VA EC 231-511-9 Sodium perchlorate [UN1502] [Oxidizer] UN1502

### 1.2 Other means of identification

**Product number** C1925416  
**Other names** -

### 1.3 Recommended use of the chemical and restrictions on use

**Identified uses** For laboratory and Industrial use only.  
**Uses advised against** no data available

### 1.4 Supplier's details

**Company** CATO Research Chemicals Inc.  
**Address** 3/F,Building B,No.179 BASIGO, Guangpu Rd East,Huangpu Dist,Guangzhou  
**Telephone** +86-20-81960175

### 1.5 Emergency phone number

**Emergency phone number** +86-20-81960175  
**Service hours** 'Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Oxidizing solids, Category 1  
Acute toxicity - Category 4, Oral

### 2.2 GHS label elements, including precautionary statements

**Pictogram(s)**



**Signal word** Danger  
**Hazard statement(s)** H271 May cause fire or explosion; strong oxidizer  
H302 Harmful if swallowed

**Precautionary statement(s)**  
**Prevention**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P220 Keep away from clothing and other combustible materials.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...  
P283 Wear fire resistant or flame retardant clothing.  
P264 Wash ... thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.

|                 |                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Response</b> | <p>P306+P360 IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.</p> <p>P371+P380+P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.</p> <p>P370+P378 In case of fire: Use ... to extinguish.</p> <p>P301+P317 IF SWALLOWED: Get medical help.</p> <p>P330 Rinse mouth.</p> |
| <b>Storage</b>  | P420 Store separately.                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Disposal</b> | P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.                                                                                                                                                                                                             |

## 2.3 Other hazards which do not result in classification

no data available

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

| Chemical name                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Common names and synonyms | CAS number | EC number | Concentration |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------|-----------|---------------|
| 7601-89-0 97F4MTY3VA Sodium perchlorate Perchloric acid, sodium salt Perchloric acid, sodium salt (1:1) EINECS 231-511-9 HSDB 5038 Natriumperchloraat [Dutch] Natriumperchlorat [German] Perchlorate de sodium [French] Sodio (perclorato di) [Italian] Sodium (perchlorate de) [French] CPL 46 Natriumperchloraat Natriumperchlorat Perchlorate de sodium Sodio (perclorato di) Sodium (perchlorate de) UNII-97F4MTY3VA EC 231-511-9 Sodium perchlorate [UN1502] [Oxidizer] UN1502 | Sodium perchlorate        | 7601-89-0  | 231-511-9 | 100%          |

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

#### If inhaled

Fresh air, rest. Refer for medical attention.

#### Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap.

#### Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

#### Following ingestion

Rinse mouth. Refer for medical attention.

### 4.2 Most important symptoms/effects, acute and delayed

no data available

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

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

### 5.2 Specific hazards arising from the chemical

Not combustible but enhances combustion of other substances. Many reactions may cause fire or explosion. Gives off irritating or toxic fumes (or gases) in a fire.

### 5.3 Special protective actions for fire-fighters

In case of fire in the surroundings, use appropriate extinguishing media. In case of fire: keep drums, etc., cool by spraying with water. Combat fire from a sheltered position.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Sweep spilled substance into covered sealable containers. If appropriate, moisten first to prevent dusting. Wash away remainder with plenty of water. Do NOT absorb in saw-dust or other combustible absorbents. Personal protection: particulate filter respirator adapted to the airborne concentration of the substance.

## 6.2 Environmental precautions

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

## 6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

NO open flames, NO sparks and NO smoking. NO contact with flammables. Do NOT expose to friction or shock. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### 7.2 Conditions for safe storage, including any incompatibilities

Separated from combustible substances and reducing agents. See Chemical Dangers. Well closed.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure limit values

no data available

#### Biological limit values

no data available

### 8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

Wear safety goggles or eye protection in combination with breathing protection.

#### Skin protection

Protective gloves.

#### Respiratory protection

Use local exhaust or breathing protection.

#### Thermal hazards

no data available

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## SECTION 9: Physical and chemical properties and safety characteristics

|                                                          |                                |
|----------------------------------------------------------|--------------------------------|
| Physical state                                           | white solid                    |
| Colour                                                   | no data available              |
| Odour                                                    | no data available              |
| Melting point/freezing point                             | 482°C                          |
| Boiling point or initial boiling point and boiling range | no data available              |
| Flammability                                             | no data available              |
| Lower and upper explosion limit/flammability limit       | no data available              |
| Flash point                                              | 400°C                          |
| Auto-ignition temperature                                | no data available              |
| Decomposition temperature                                | no data available              |
| pH                                                       | no data available              |
| Kinematic viscosity                                      | no data available              |
| Solubility                                               | Solubility in water: very good |
| Partition coefficient n-octanol/water                    | no data available              |
| Vapour pressure                                          | no data available              |
| Density and/or relative density                          | 2.2                            |
| Relative vapour density                                  | no data available              |
| Particle characteristics                                 | no data available              |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

Decomposes on heating. This produces toxic fumes of chlorine and chloroxides. The substance is a strong oxidant. It reacts with combustible and reducing materials. This generates fire and explosion hazard.

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

#### Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

#### Skin corrosion/irritation

no data available

#### Serious eye damage/irritation

no data available

#### Respiratory or skin sensitization

no data available

#### Germ cell mutagenicity

no data available

#### Carcinogenicity

no data available

#### Reproductive toxicity

no data available

#### STOT-single exposure

The substance is irritating to the eyes, skin and respiratory tract.

#### STOT-repeated exposure

The substance may have effects on the blood. This may result in the formation of methaemoglobin. See Notes.

#### Aspiration hazard

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.

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## SECTION 12: Ecological information

### 12.1 Toxicity

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

## 12.4 Mobility in soil

no data available

## 12.5 Other adverse effects

no data available

# SECTION 13: Disposal considerations

## 13.1 Disposal methods

### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

# SECTION 14: Transport information

## 14.1 UN Number

ADR/RID: UN1502 (For reference only, please check.) IMDG: UN1502 (For reference only, please check.) IATA: UN1502 (For reference only, please check.)

## 14.2 UN Proper Shipping Name

ADR/RID: SODIUM PERCHLORATE (For reference only, please check.) IMDG: SODIUM PERCHLORATE (For reference only, please check.) IATA: SODIUM PERCHLORATE (For reference only, please check.)

## 14.3 Transport hazard class(es)

ADR/RID: 5.1 (For reference only, please check.) IMDG: 5.1 (For reference only, please check.) IATA: 5.1 (For reference only, please check.)

## 14.4 Packing group, if applicable

ADR/RID: II (For reference only, please check.) IMDG: II (For reference only, please check.) IATA: II (For reference only, please check.)

## 14.5 Environmental hazards

ADR/RID: No IMDG: No IATA: No

## 14.6 Special precautions for user

no data available

## 14.7 Transport in bulk according to IMO instruments

no data available

# SECTION 15: Regulatory information

## 15.1 Safety, health and environmental regulations specific for the product in question

| Chemical name                                                            | Common names and synonyms | CAS number | EC number |
|--------------------------------------------------------------------------|---------------------------|------------|-----------|
| Sodium perchlorate                                                       | Sodium perchlorate        | 7601-89-0  | 231-511-9 |
| European Inventory of Existing Commercial Chemical Substances (EINECS)   |                           |            | Listed.   |
| EC Inventory                                                             |                           |            | Listed.   |
| United States Toxic Substances Control Act (TSCA) Inventory              |                           |            | Listed.   |
| China Catalog of Hazardous chemicals 2015                                |                           |            | Listed.   |
| New Zealand Inventory of Chemicals (NZIoC)                               |                           |            | Listed.   |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS)       |                           |            | Listed.   |
| Vietnam National Chemical Inventory                                      |                           |            | Listed.   |
| Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) |                           |            | Listed.   |
| Korea Existing Chemicals List (KECL)                                     |                           |            | Listed.   |

# SECTION 16: Other information

Information on revision

Creation Date

July 15, 2019

Revision Date

April 16, 2024

#### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

#### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

#### Other Information

Other melting points: sodium perchlorate monohydrate: 130°C. Will turn shock-sensitive if contaminated with organic substances. Specific treatment is necessary in case of poisoning with this substance; the appropriate means with instructions must be available. Rinse contaminated clothing with plenty of water because of fire hazard. The recommendations on this Card also apply to Sodium perchlorate monohydrate. Depending on the degree of exposure, periodic medical examination is suggested.

**Any questions regarding this SDS, Please send your inquiry to [info@cato-chem.com](mailto:info@cato-chem.com)**

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*Disclaimer: 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. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.*