

## 1 Identifikasi Senyawa (Tunggal atau Campuran)

- **Product identifier**
- **Trade name:** Sodium Perchlorate Monohydrate, ACS
- **Article number:** 194862
- **CAS Number:**  
7791-07-3
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Research use only.
- **Details of the supplier of the safety data sheet**
- **Further information obtainable from:** Quality Control Department
- **Emergency telephone number:** CHEMTREC: 1-800-424-9300 (1-703-527-3887)

## 2 Identifikasi Bahaya

- **Classification of the substance or mixture**



flame over circle

Ox. Sol. 1 H271 May cause fire or explosion; strong oxidiser.



Acute Tox. 4 H302 Harmful if swallowed.

- **Label elements**
- **GHS label elements**  
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS03 GHS07

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**  
*Sodium Perchlorate Monohydrate, ACS*
- **Hazard statements**  
*May cause fire or explosion; strong oxidiser.*  
*Harmful if swallowed.*
- **Precautionary statements**  
*If medical advice is needed, have product container or label at hand.*  
*Keep out of reach of children.*  
*Read label before use.*  
*Keep away from heat. - No smoking.*  
*Take any precaution to avoid mixing with combustibles.*  
*Wear fire/flare resistant/retardant clothing.*  
*IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.*  
*In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.*

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- *Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT: Not applicable.**
- **vPvB: Not applicable.**

### 3 Komposisi /Informasi tentang Bahan Penyusun Senyawa Tunggal

- **Chemical characterisation: Substances**
- **CAS No. Description**  
7791-07-3 Sodium Perchlorate Monohydrate, ACS

### 4 Tindakan Pertolongan Pertama pada Kecelakaan

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Call for a doctor immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Tindakan pemadaman kebakaran

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Tindakan Penanggulangan jika terjadi Tumpahan dan Kebocoran

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Penanganan dan Penyimpanan

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** Protect from heat.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage:** 15-30°C
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Further information about storage conditions:**  
 Desiccate.  
 Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

### 8 Kontrol Paparan/ Perlindungan Diri

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.

### 9 Sifat fisika dan kimia

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Crystalline
<b>Colour:</b>	Clear
<b>Odour:</b>	Indeterminate
<b>Odour threshold:</b>	Not determined.
- **pH-value:** Not applicable.

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· <b>Change in condition</b> Melting point/freezing point: unknown °C Initial boiling point and boiling range: Undetermined.	
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gas):</b>	Product is not flammable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto-ignition temperature:</b>	Not determined.
· <b>Explosive properties:</b>	Product does not present an explosion hazard. Explosive when mixed with combustible material.
· <b>Explosion limits:</b> Lower: Upper:	Not determined. Not determined.
· <b>Vapour pressure:</b>	Not applicable.
· <b>Density:</b> Relative density Vapour density Evaporation rate	Not determined. Not determined. Not applicable. Not applicable.
· <b>Solubility in / Miscibility with</b> water:	- Not determined.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b> Dynamic: Kinematic:	Not applicable. Not applicable.
· <b>Solvent content:</b> VOC (EC) Other information	0.00 % No further relevant information available.

### 10 Stabilitas dan Reaktifitas

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Informasi Toksikologi

- **Information on toxicological effects**
- **Acute toxicity:**

· <b>LD/LC50 values relevant for classification:</b>		
ATE (Acute Toxicity Estimates)		
Oral	LD50	2,100 mg/kg (rat)

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Oral LD50 2,100 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** No irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.


## 12 Informasi Ekologi

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Pembuangan Limbah

- **Waste treatment methods**
- **Recommendation**  
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Informasi Transpor/Pengangkutan

- **UN-Number**
- **ADR, IMDG, IATA** UN1502
- **UN proper shipping name**
- **ADR** 1502 SODIUM PERCHLORATE
- **IMDG, IATA** SODIUM PERCHLORATE
- **Transport hazard class(es)**
- **ADR, IMDG, IATA**
- 
- **Class** 5.1 Oxidising substances.

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· <b>Label</b>	5.1
· <b>Packing group</b> · <b>ADR, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b> · <b>Segregation groups</b> · <b>Stowage Category</b> · <b>Segregation Code</b>	Warning: Oxidising substances. 50 F-H,S-Q Perchlorates A SG38 Stow "separated from" ammonium compounds. SG49 Stow "separated from" cyanides
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
· <b>Transport category</b> · <b>Tunnel restriction code</b>	2 E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
· <b>UN "Model Regulation":</b>	UN 1502 SODIUM PERCHLORATE, 5.1, II

### 15 Informasi yang Berkaitan dengan Regulasi

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- GHS label elements  
The substance is classified and labelled according to the Globally Harmonised System (GHS).
- Hazard pictograms



GHS03 GHS07

- Signal word *Danger*
- Hazard-determining components of labelling:  
Sodium Perchlorate Monohydrate, ACS
- Hazard statements  
May cause fire or explosion; strong oxidiser.  
Harmful if swallowed.

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· **Precautionary statements**

*If medical advice is needed, have product container or label at hand.*

*Keep out of reach of children.*

*Read label before use.*

*Keep away from heat. - No smoking.*

*Take any precaution to avoid mixing with combustibles.*

*Wear fire/flare resistant/retardant clothing.*

*IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.*

*In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** Substance is not listed.

· **Seveso category P8 OXIDISING LIQUIDS AND SOLIDS**

· **Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t**

· **Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t**

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Informasi Lain

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing SDS:** Quality Control Dept.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ox. Sol. 1: Oxidizing solids – Category 1

Acute Tox. 4: Acute toxicity – Category 4