

PAGE #:1 OF 6	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date: 07/28/2021
DOCUMENT # : F/RPI/QC 7.7.3-02	PRODUCT NAME: Sodium Perchlorate, ACS Grade		RPI ITEM NO: S78000

### **SECTION 1 - CHEMICAL IDENTIFICATION**

PRODUCT NAME: Sodium Perchlorate, ACS Grade  
 RPI CATALOG #: S78000  
 SUPPLIER'S NAME: Research Products International Corp.  
 SUPPLIERS ADDRESS: 410 N Business Center Drive Mount Prospect, IL 60056  
 EMERGENCY CONTACT: 1-800-424-9300  
 OTHER INFORMATION: 847-635-7330

### **SECTION 2 - HAZARDS IDENTIFICATION**

#### **2.1 Classification of the substance or mixture**

##### **GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

H271	Oxidizing solids	Category 1
H302	Acute toxicity, Oral	Category 4
H319	Serious eye damage/eye irritation	Category 2
H373	Specific target organ toxicity - repeated exposure- Thyroid	Category 2

#### **2.2 GHS Label elements, including Hazard and Precautionary Statement(s) Pictogram**



**Signal word: Danger**

##### **Hazard statement(s)**

H271	May cause fire or explosion; strong oxidizer.
H302	Harmful if swallowed
H319	Cause Serious Eye irritation
H373	May cause damage to organs (Thyroid) through prolonged or repeated exposure.

##### **Prevention, Response, Storage and Disposal Precautionary Statement(s)**

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220	Keep/Store away from clothing/ combustible materials.
P221	Take any precaution to avoid mixing with combustibles.
P260	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product.

PAGE #:2 OF 6	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date: 07/28/2021
DOCUMENT # : F/RPI/QC 7.7.3-02	PRODUCT NAME: Sodium Perchlorate, ACS Grade		RPI ITEM NO: S78000

P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 +P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P306 + P360	IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P314	Get medical advice/attention if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
P371 + P380 + P375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P501	Dispose of contents/ container to an approved waste disposal plant.

### **SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS #	EINECS #	Formula	Molecular Weight	%
SODIUM PERCHLORATE	7601-89-0	231-511-9	NaClO <sub>4</sub>	122.44 g	100

### **SECTION 4 - FIRST-AID MEASURES**

#### **4.1 Description of first aid measures**

**General advice:** Consult a doctor and show this safety data sheet.

- i. **If inhaled:** Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
- ii. **In case of skin contact:** Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
- iii. **In case of eye contact:** Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
- iv. **If swallowed:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

**4.2 Most important symptoms and effects, both acute and delayed:** To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**4.3 Indication of immediate medical attention and special treatment needed:** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

### **SECTION 5 - FIRE FIGHTING MEASURES**

#### **5.1 Extinguishing media**

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**5.2 Special hazards arising from the substance or mixture:** Hydrogen chloride gas, Sodium oxides Not combustible. Has a fire-promoting effect due to release of oxygen. Ambient fire may liberate hazardous vapors..

**5.3 Precautions for fire-fighters:** Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

PAGE #:3 OF 6	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date: 07/28/2021
DOCUMENT # : F/RPI/QC 7.7.3-02	PRODUCT NAME: Sodium Perchlorate, ACS Grade		RPI ITEM NO: S78000

**5.4 Further information:** No data available

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:** Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

**6.2 Environmental precautions:** Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up:** Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

**6.4 Reference to other sections:** For required PPE see section 8. For disposal see section 13.

## **SECTION 7 - HANDLING AND STORAGE**

**7.1 Precautions for safe handling:** Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

**7.2 Conditions for safe storage, including any incompatibilities:** Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Keep in a dry place. Store at room temperature.

**7.3 Specific end use(s):** Use in a laboratory fume hood where possible. Refer to employer's COSHH risk assessment.

## **SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

**Components with workplace control parameters:** Contains no substances with occupational exposure limit values.

### **8.2 Exposure Controls**

- i. **Appropriate engineering controls:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. An eye wash and safety shower must be available in the immediate work area.

### **8.3 Personal protective equipment**

- i. **Eye/face protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- ii. **Skin protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166
- iii. **Body Protection:** Wear appropriate protective clothing. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- iv. **Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
- v. **Control of environmental exposure:** Do not let product enter drains

PAGE #:4 OF 6	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date: 07/28/2021
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## **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

### Information on basic physical and chemical properties

<b>Appearance</b>	White crystalline powder or chunks	<b>Vapor Pressure</b>	No Data Available
<b>Odor</b>	No Data Available	<b>Density</b>	2.52 g/cm <sup>3</sup>
<b>Odor Threshold</b>	No Data Available	<b>Relative Density</b>	No Data Available
<b>pH</b> in aqueous solution	6 - 8 (5% solution)	<b>Water Solubility</b>	68 % at 0°C
<b>Melting / Freezing Point</b>	896°F (480°C)	<b>Partition Coefficient</b>	No Data Available
<b>Initial Boiling Point Range</b>	No Data Available	<b>Auto-Ignition Temperature</b>	No Data Available
<b>Flash Point</b>	No Data Available	<b>Decomposition Temperature</b>	> 899.6°F (> 482°C)
<b>Evaporation Rate</b>	No Data Available	<b>Specific Gravity</b>	2.52
<b>Flammability (Solid, Gas)</b>	No Data Available	<b>Explosive Properties</b>	No Data Available
<b>Upper / Lower Flammability Or Explosive Limits</b>	No Data Available	<b>Oxidizing Properties</b>	No Data Available

## **SECTION 10 - STABILITY AND REACTIVITY**

**Stability:** Stable under recommended storage conditions.

**Hazardous Decomposition Products:** Hydrogen chloride.

**Hazardous Polymerization:** No Data Available.

**Incompatibilities:** Combustible material. Reducing agents. Organic materials. Flammable materials.

**Condition to avoid:** Heat. Contact with incompatible materials

## **SECTION 11 - TOXICOLOGICAL INFORMATION**

### Acute Toxicity

LD50 Oral	LD50 Dermal	LD50 Inhalation	LD50 Intraperitoneal
2100 mg/kg (Rat)	Not Listed	Not Listed	Not Listed

**Skin corrosion/irritation:** Skin - Rabbit Result: slight irritation (OECD Test Guideline 404)

**Serious eye damage/eye irritation:** Eyes - Rabbit Result: Irritations (OECD Test Guideline 405)

## **SECTION 12 - ECOLOGICAL INFORMATION**

**Ecotoxicity:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**Results of PBT and vPvB assessment:** No data available

**Other adverse effects:** No data available

**Chronic Toxicity:** There are no known carcinogenic chemicals in this product

## **SECTION 13 - DISPOSAL CONSIDERATIONS**

PAGE #:5 OF 6	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date: 07/28/2021
DOCUMENT # : F/RPI/QC 7.7.3-02	PRODUCT NAME: Sodium Perchlorate, ACS Grade		RPI ITEM NO: S78000

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**SECTION 14 - TRANSPORT INFORMATION**

	UN#	Proper Shipping Name	Hazard Class	Packaging Group
<b>DOT</b>	1502	Sodium perchlorate	5.1	II
<b>TDG</b>	1502	Sodium perchlorate	5.1	II
<b>IATA</b>	1502	Sodium perchlorate	5.1	II
<b>IMDG/IMO</b>	1502	Sodium perchlorate	5.1	II

**SECTION 15 - REGULATORY INFORMATION**

**INTERNATIONAL INVENTORIES**

TSCA	DSL	NDSL	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Listed	Listed	-	-	-	Listed	Listed	Listed	Listed	Listed

**USA FEDERAL REGULATION**

**SARA 311/312 HAZARDOUS CATEGORIZATION**

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	Yes

**TSCA 12(b):** Not Applicable

**SARA 313:** Not Applicable

**Clean Water Act/Clean Air Act:** Not Applicable

**OSHA:** Not Applicable

**California Proposition 65:** This product does not contain any Proposition 65 chemicals.

**HMIS Rating**

Health hazard	Chronic Health Hazard	Flammability	Physical Hazard
2	*	0	0

**NFPA Rating**

Health Hazard	Flammability	Reactivity Hazard
2	0	0

**STATE RIGHT TO KNOW**

Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Listed	Listed	Listed	-	-

PAGE #:6 OF 6	<b>PRODUCT SAFETY DATA SHEET</b> <b>RESEARCH PRODUCTS INTERNATIONAL</b>	ISSUE DATE: 12/15/14	REV.:1 REV Date: 07/28/2021
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**US DEPARTMENT OF TRANSPORTATION**

REPORTABLE QUANTITY (RQ)	DOT MARINE POLLUTANT	DOT SEVER MARINE POLLUTANT
<b>No</b>	<b>No</b>	<b>No</b>

**U.S. DEPARTMENT OF HOMELAND SECURITY:** This product does not contain any DHS chemicals.

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

**This SDS complies with the requirements of Regulation (EC).**

**SECTION 16 - OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Research Products International Corp. 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. This product is sold for laboratory research and development purposes use only.