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Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II and Regulation (EC) No. 1272/2008 (CLP) - Europe

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

#### POTASSIUM PERMANGANATE (ACS) PURE P.A.

Index number : 025-002-00-9  
EC number : 231-760-3  
CAS number : 7722-64-7  
Catalogue number : 743880111  
Product type : Solid.  
Other means of identification : Permanganic acid, potassium salt; Permanganic acid (HMnO<sub>4</sub>), potassium salt (1:1); Permanganic acid (HMnO<sub>4</sub>), potassium salt; Potassium permanganate, >38% in a non hazardous diluent; Potassium permanganate, 10 - 14% in a non hazardous diluent; Potassium permanganate, >3 - 5% in a non hazardous diluent  
Chemical formula : Mn-O<sub>4</sub>.K

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

### 1.3 Details of the supplier of the safety data sheet

POCH Spolka Akcyjna  
44-101 Gliwice, Sowinskiego 11str.  
tel.: +48 32 239-21-81; fax: +48 32 239-24-87; e-mail: export@poch.com.pl

e-mail address of person responsible for this SDS : sds@poch.com.pl

### 1.4 Emergency telephone number

Telephone number : 112

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Ox. Sol. 2, H272  
Acute Tox. 4, H302  
Aquatic Acute 1, H400  
Aquatic Chronic 1, H410

#### Classification according to Directive 67/548/EEC [DSD]

O; R8  
Xn; R22  
N; R50/53

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : May intensify fire; oxidizer. Harmful if swallowed. Very toxic to aquatic life with long lasting effects.

## POTASSIUM PERMANGANATE (ACS) PURE P.A.

**Precautionary statements** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Wear protective gloves. Wear eye or face protection. Keep away from heat. - No smoking. Keep away from clothing, incompatible materials and combustible materials. Avoid release to the environment. Collect spillage. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Dispose of contents and container in accordance with all local, regional, national and international regulations.

### 2.3 Other hazards

**Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII** : Not applicable.

**Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : Not applicable.

**Other hazards which do not result in classification** : Not available.

## SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
Potassium permanganate	EC: 231-760-3 CAS: 7722-64-7 Index: 025-002-00-9	100	O; R8 Xn; R22 N; R50/53  See Section 16 for the full text of the R-phrases declared above.	Ox. Sol. 2, H272 Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410  See Section 16 for the full text of the H statements declared above.	[A]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

[A] Constituent

[B] Impurity

[C] Stabilizing additive

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention. Continue to rinse for at least 10 minutes.
- Inhalation** : Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

##### Potential acute health effects

- Eye contact** : May cause eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : May cause skin irritation.  
**Ingestion** : Harmful if swallowed.

##### Over-exposure signs/symptoms

- Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

#### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.  
**Specific treatments** : No specific treatment.
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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

- Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Oxidizing material. May intensify fire. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.  
**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
metal oxide/oxides

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. This material is very toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.  
**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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## SECTION 6: Accidental release measures

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

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.  
**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if released in large quantities.

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

## POTASSIUM PERMANGANATE (ACS) PURE P.A.

- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.
- 6.4 Reference to other sections** : See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from clothing, incompatible materials and combustible materials. Keep away from heat. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

- : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Separate from reducing agents and combustible materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
potassium permanganate	<b>ACGIH TLV (United States, 2/2010).</b> TWA: 0,2 mg/m <sup>3</sup> , (as Mn) 8 hour(s).

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

### 8.2 Exposure controls

- Appropriate engineering controls** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Individual protection measures**

## POTASSIUM PERMANGANATE (ACS) PURE P.A.

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<b>Hygiene measures</b>	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Eye/face protection</b>	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
<b>Skin protection</b>	
<b>Hand protection</b>	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
<b>Body protection</b>	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Other skin protection</b>	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Respiratory protection</b>	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
<b>Environmental exposure controls</b>	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: Solid. [Crystals.]
<b>Color</b>	: Dark purple.
<b>Odor</b>	: Odorless.
<b>pH</b>	: 5 [Conc. (% w/w): 5%]
<b>Melting point/freezing point</b>	: 239,8°C
<b>Initial boiling point and boiling range</b>	: Not available.
<b>Flash point</b>	: Open cup: Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Relative density</b>	: 2,7
<b>Solubility(ies)</b>	: Easily soluble in the following materials: hot water.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not applicable.
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.

### 9.2 Other information

No additional information.

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## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following: contact with combustible materials Reactions may include the following: risk of causing or intensifying fire
<b>10.4 Conditions to avoid</b>	: No specific data.

**POTASSIUM PERMANGANATE (ACS) PURE P.A.**

**10.5 Incompatible materials** : Reactive or incompatible with the following materials:  
combustible materials  
reducing materials

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
potassium permanganate	LD50 Oral	Rat	750 mg/kg	-

**Conclusion/Summary** : Not available.

**Irritation/Corrosion**

**Conclusion/Summary** : Not available.

**Sensitization**

**Conclusion/Summary** : Not available.

**Mutagenicity**

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

**Conclusion/Summary** : Not available.

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

Not available.

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

Not available.

**Aspiration hazard**

Not available.

**Information on the likely routes of exposure**

**Eye contact** : May cause eye irritation.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : May cause skin irritation.

**Ingestion** : Harmful if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

## POTASSIUM PERMANGANATE (ACS) PURE P.A.

<b>Conclusion/Summary</b>	: Not available.
<b>General</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.
<b>Other information</b>	: Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
potassium permanganate	Acute EC50 990 ug/L Fresh water	Crustaceans - Crangonyx pseudogracilis - Adult - 4 mm - 0,2 mg	48 hours
	Acute EC50 0,084 ppm Fresh water	Daphnia - Daphnia magna - <24 hours	48 hours
	Acute LC50 348 ug/L Fresh water	Fish - Morone saxatilis - LARVAE	96 hours

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.  
P: Not available. B: Not available. T: Not available.

**vPvB** : Not applicable.  
vP: Not available. vB: Not available.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	UN1490	UN1490	UN1490	UN1490
14.2 UN proper shipping name	POTASSIUM PERMANGANATE	POTASSIUM PERMANGANATE	POTASSIUM PERMANGANATE. Marine pollutant (POTASSIUM PERMANGANATE)	Potassium permanganate
14.3 Transport hazard class(es)	5.1 	5.1 	5.1 	5.1 
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.
14.6 Special precautions for user	Not available.	Not available.	Not available.	Not available.
Additional information	<p><b>Hazard identification number</b> 50</p> <p><b>Limited quantity</b> LQ11</p> <p><b>Tunnel code</b> (E)</p>	-	<p><b>Emergency schedules (EmS)</b> F-H, S-Q</p>	<p><b>Passenger and Cargo Aircraft</b>Quantity limitation: 5 kg Packaging instructions: 508</p> <p><b>Cargo Aircraft Only</b> Quantity limitation: 25 kg Packaging instructions: 511</p> <p><b>Limited Quantities - Passenger Aircraft</b>Quantity limitation: 2.5 kg Packaging instructions: Y508</p>

14.7 Transport in bulk according to : Not available.

Annex II of MARPOL 73/78 and the

IBC Code

## SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the : Not applicable.  
manufacture, placing on the  
market and use of certain  
dangerous substances,  
mixtures and articles

Other EU regulations

Europe inventory : This material is listed or exempted.

Priority List Chemicals : Not listed

International regulations

15.2 Chemical Safety Assessment : Not available.

## SECTION 16: Other information

 Indicates information that has changed from previously issued version.

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Ox. Sol. 2, H272 Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	Regulatory data Regulatory data Regulatory data Regulatory data

**Full text of abbreviated H statements** :  272 May intensify fire; oxidizer.  
H302 Harmful if swallowed.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]** :  Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4  
Aquatic Acute 1, H400 AQUATIC TOXICITY (ACUTE) - Category 1  
Aquatic Chronic 1, H410 AQUATIC TOXICITY (CHRONIC) - Category 1  
Ox. Sol. 2, H272 OXIDIZING SOLIDS - Category 2

**Full text of abbreviated R phrases** :  8- Contact with combustible material may cause fire.  
R22- Harmful if swallowed.  
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Full text of classifications [DSD/DPD]** :  - Oxidizing  
Xn - Harmful  
N - Dangerous for the environment

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#### Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.