

## Safety data sheet according to U.S.A. Federal Hazcom 2012

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

#### 1.1. Product identifier

Code: P62663  
Product name: Potassium Permanganate 0.01N Solution

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

Intended use: For laboratory use only.

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

Name: EXAXOL CHEMICAL CORPORATION  
Full address: 14325 60 TH ST N  
District and Country: 33760 CLEARWATER - FLORIDA  
US  
Tel. 1-727-524-7732  
Fax 1-727-532-8221

e-mail address

info@exaxol.com

#### 1.4. Emergency telephone number

For urgent inquiries refer to: 1-800-255-3924  
ChemTel Inc.

### SECTION 2. Hazards identification.

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

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information.

Signal words: --

Hazard statements:

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Precautionary statements:

**P62663 - Potassium Permanganate 0.01N Solution**

Prevention:

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Response:

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Storage:

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Disposal:

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2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3

Harmful to aquatic life with long lasting effects.

Hazard statements:

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**H412**

Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

**P273**

Avoid release to the environment.

Response:

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Storage:

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Disposal:

**P501**

Dispose of contents / container to an approved waste disposal plant.

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Additional hazards.

**SECTION 3. Composition/information on ingredients.****3.1. Substances.**

Information not relevant.

**3.2. Mixtures.**

Contains:

| Identification.   | Conc. %.     | Classification:  |
|---|--------------|--|
| <b>WATER</b>  |              |  |
| CAS. 7732-18-5  | 50 - 100     |  |
| <b>POTASSIUM PERMANGANATE ( 37.76% - metallic element )</b> |              |  |
| CAS. 7722-64-7  | 0.025 - 0.25 | Oxidising solid, category 2<br>H272, Acute toxicity, category 4<br>H302, Hazardous to the aquatic environment, acute |

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toxicity, category 1 H400  
M=10, Hazardous to the  
aquatic environment, chronic  
toxicity, category 1 H410  
M=10

Note: Upper limit is not included into the range.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

**SECTION 4. First aid measures.****4.1. Description of first aid measures.**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

**4.2. Most important symptoms and effects, both acute and delayed.**

For symptoms and effects caused by the contained substances, see chap. 11.

**4.3. Indication of any immediate medical attention and special treatment needed.**

Information not available.

**SECTION 5. Firefighting measures.****5.1. Extinguishing media.****SUITABLE EXTINGUISHING EQUIPMENT**

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

**UNSUITABLE EXTINGUISHING EQUIPMENT**

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

**5.2. Special hazards arising from the substance or mixture.****HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

**5.3. Advice for firefighters.****GENERAL INFORMATION**

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures.****6.1. Personal precautions, protective equipment and emergency procedures.**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions.**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

**6.3. Methods and material for containment and cleaning up.**

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections.**

Any information on personal protection and disposal is given in sections 8 and 13.

**SECTION 7. Handling and storage.****7.1. Precautions for safe handling.**

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

**7.2. Conditions for safe storage, including any incompatibilities.**

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

**7.3. Specific end use(s).**

Information not available.

**SECTION 8. Exposure controls/personal protection.****8.1. Control parameters.**

Regulatory References:

|     |              |  |
|-----|--------------|--|
| USA | OSHA-PEL     | Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.                      |
| USA | CAL/OSHA-PEL | California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs). |
|     | TLV-ACGIH    | ACGIH 2014   |

**POTASSIUM PERMANGANATE****Threshold Limit Value.**

| Type      | Country | TWA/8h |     | STEL/15min |     |
|-----------|---------|--------|-----|------------|-----|
|           |         | mg/m3  | ppm | mg/m3      | ppm |
| TLV-ACGIH | -       | 0.1    |     |            |     |
| OSHA      | USA     |        |     | 5 (C)      |     |
| OSHA      | USA     |        |     | 5 (C)      |     |
| CAL/OSHA  | USA     | 0.2    |     |            |     |
| CAL/OSHA  | USA     | 0.2    |     |            |     |

**8.2. Exposure controls.**

Comply with the safety measures usually applied when handling chemical substances.

**HAND PROTECTION**

None required.

**SKIN PROTECTION**

None required.

**EYE PROTECTION**

None required.

**RESPIRATORY PROTECTION**

None required, unless indicated otherwise in the chemical risk assessment.

**ENVIRONMENTAL EXPOSURE CONTROLS.**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

**SECTION 9. Physical and chemical properties.****9.1. Information on basic physical and chemical properties.**

|                                 |                |
|---------------------------------|----------------|
| Appearance                      | Not available. |
| Colour                          | Not available. |
| Odour                           | Not available. |
| Odour threshold.                | Not available. |
| pH.                             | Not available. |
| Melting point / freezing point. | Not available. |

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|  |                |
|--|----------------|
| Initial boiling point.                 | Not available. |
| Boiling range.                         | Not available. |
| Flash point.                           | > 93 °C.       |
| Evaporation Rate                       | Not available. |
| Flammability of solids and gases       | Not available. |
| Lower inflammability limit.            | Not available. |
| Upper inflammability limit.            | Not available. |
| Lower explosive limit.                 | Not available. |
| Upper explosive limit.                 | Not available. |
| Vapour pressure.                       | Not available. |
| Vapour density                         | Not available. |
| Relative density.                      | 1.000 Kg/l     |
| Solubility                             | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature.             | Not available. |
| Decomposition temperature.             | Not available. |
| Viscosity                              | Not available. |
| Explosive properties                   | Not available. |
| Oxidising properties                   | Not available. |

**9.2. Other information.**

Information not available.

**SECTION 10. Stability and reactivity.****10.1. Reactivity.**

There are no particular risks of reaction with other substances in normal conditions of use.

**10.2. Chemical stability.**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions.**

No hazardous reactions are foreseeable in normal conditions of use and storage.

**10.4. Conditions to avoid.**

None in particular. However the usual precautions used for chemical products should be respected.

**10.5. Incompatible materials.**

Information not available.

**10.6. Hazardous decomposition products.**

Information not available.

## SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

### 11.1. Information on toxicological effects.

Information not available.

## SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

### 12.1. Toxicity.

|   |   |
|---|---|
| POTASSIUM<br>PERMANGANATE<br>LC50 - for Fish. | 0.96 mg/l/96h <i>Morone saxatilis</i>         |
| EC50 - for Crustacea.                         | 0.084 mg/l/48h <i>Daphnia magna</i>           |
| EC50 - for Algae / Aquatic<br>Plants.         | 0.18 mg/l/72h <i>Aphanizomenon flos-aquae</i> |

### 12.2. Persistence and degradability.

|   |              |
|---|--------------|
| POTASSIUM<br>PERMANGANATE<br>Solubility in water. | > 10000 mg/l |
|---|--------------|

Biodegradability: Information not available.

### 12.3. Bioaccumulative potential.

Information not available.

### 12.4. Mobility in soil.

Information not available.

### 12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

### 12.6. Other adverse effects.

Information not available.

## SECTION 13. Disposal considerations.

**13.1. Waste treatment methods.**

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. Transport information.****14.1. UN number.**

Not applicable.

**14.2. UN proper shipping name.**

Not applicable.

**14.3. Transport hazard class(es).**

Not applicable.

**14.4. Packing group.**

Not applicable.

**14.5. Environmental hazards.**

Not applicable.

**14.6. Special precautions for user.**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.**

Information not relevant.



**SECTION 15. Regulatory information.**

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

U.S. Federal Regulations.

TSCA:

All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):

7722-64-7

POTASSIUM PERMANGANATE  
(Manganese compounds, Manganese  
soluble compounds)

Clean Air Act Section 602 Class I Substances:

No component(s) listed.

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

Clean Water Act –  
Priority Pollutants:

No component(s) listed.

Clean Water Act –  
Toxic Pollutants:

No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

EPA List of Lists:

313 Category Code:

7722-64-7

POTASSIUM PERMANGANATE  
(Manganese compounds, Manganese  
soluble compounds)

7722-64-7

POTASSIUM PERMANGANATE  
(Manganese compounds, Manganese  
soluble compounds)

EPCRA 302 EHS TPQ:

No component(s) listed.

EPCRA 304 EHS RQ:

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No component(s) listed.

CERCLA RQ:

7722-64-7

POTASSIUM PERMANGANATE  
(Manganese compounds, Manganese  
soluble compounds)

EPCRA 313 TRI:

7722-64-7

POTASSIUM PERMANGANATE  
(Manganese compounds, Manganese  
soluble compounds)

RCRA Code:

No component(s) listed.

CAA 112 (r) RMP TQ:

No component(s) listed.

State Regulations.

Massachusetts:

7722-64-7

POTASSIUM PERMANGANATE  
(Manganese compounds, Manganese  
soluble compounds)

Minnesota:

No component(s) listed.

New Jersey:

7722-64-7

POTASSIUM PERMANGANATE  
(Manganese compounds, Manganese  
soluble compounds)

New York:

7722-64-7

POTASSIUM PERMANGANATE  
(Manganese compounds, Manganese  
soluble compounds)

Pennsylvania:

7722-64-7

POTASSIUM PERMANGANATE  
(Manganese compounds, Manganese  
soluble compounds)

California:

7722-64-7

POTASSIUM PERMANGANATE  
(Manganese compounds, Manganese  
soluble compounds)

Proposition 65:

International Regulations.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

**P62663 - Potassium Permanganate 0.01N Solution**Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Canadian WHMIS.

Information not available.

**SECTION 16. Other information.**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

|             |   |
|-------------|---|
| <b>H272</b> | May intensify fire; oxidiser.                           |
| <b>H400</b> | Very toxic to aquatic life.                             |
| <b>H410</b> | Very toxic to aquatic life with long lasting effects.   |
| <b>H411</b> | Toxic to aquatic life with long lasting effects.        |
| <b>H412</b> | Harmful to aquatic life with long lasting effects.      |
| <b>H413</b> | May cause long lasting harmful effects to aquatic life. |

## LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 @ RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112@)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

## GENERAL BIBLIOGRAPHY:

- GHS rev. 3

**P62663 - Potassium Permanganate 0.01N Solution**

- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Communication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachusetts 105 CMR Department of public health 670.000: "Right to Know"
- Minnesota Chapter 5206 Department Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.