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Safety Data Sheet According to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

P62661 Code:

Product name Potassium Permanganate 0.1N

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

EXAXOL CHEMICAL CORPORATION Full address

14325 60 TH ST N

District and Country 33760 CLEARWATER - FLORIDA

Tel. 1-727-524-7732 Fax 1-727-532-8221

e-mail address

info@exaxol.com

1.4. Emergency telephone number

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

2. Hazards identification

2.1. Classification of the substance or mixture

Hazard pictograms:

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:

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Hazard statements:		
Precautionary statements:		
Prevention:		
Response:		
Storage:		
Disposal:		
2.2. Other hazards		
Environmental classification	as for Reg. (EU) 1272/2008 (CLP):	
The product is classified as	hazardous for environment pursuant to the provision	s set forth in EC Regulation 1272/2008 (CLP).
Classification and Hazard St Hazardous to the aquatic 6	tatement environment, chronic toxicity, category 2	Toxic to aquatic life with long lasting effects.
Hazard pictograms:		
Hazard statements:		
H411	Toxic to aquatic life with long lasting effects.	
Precautionary statements:		

Storage: --Disposal:

Prevention: **P273**

Response: P391

P501 Dispose of contents / container to an approved waste disposal plant.

Avoid release to the environment.

Additional hazards

Information not available

3. Composition/information on ingredients

Collect spillage.

3.2. Mixtures

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Contains:

Identification x = Conc. % Classification:

WATER

CAS 7732-18-5 98 ≤ x < 100

EC 231-791-2

INDEX -

POTASSIUM PERMANGANATE

CAS 7722-64-7 0,25 ≤ x < 0,55 Oxidising solid, category 2 H272, Acute toxicity, category 4 H302, Hazardous

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

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

EC 231-760-3

INDEX 025-002-00-9

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

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Do not breathe combustion products.

5.3. Advice for firefighters

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GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

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).

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. 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.

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

8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

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USA OSHA-PFI CAL/OSHA-PEL USA TLV-ACGIH

Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000. California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).

POTASSIUM PERMANGANATE Threshold Limit Value							
Type	Country	TWA/8h		STEL/15min	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					

Legend:

(C) = CEILING; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction.

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

Initial boiling point

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.

Not available

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance liquid Colour Not available Odour Not available Odour threshold Not available Not available Melting point / freezing point Not available

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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 Relative density Not available 1 00 Solubility Not available Partition coefficient: n-octanol/water Not available Auto-ignition temperature Not available Decomposition temperature Not available Not available Viscosity Explosive properties Not available Oxidising properties Not available

9.2. Other information

Information not available

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

POTASSIUM PERMANGANATE

Incompatible with: strong reducing agents,peroxides,zinc,copper,alcohols,hydrogen fluoride,acids,sulphuric acid,metal powders.

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial

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practices.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

Does not meet the classification criteria for this hazard class

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

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Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment. 12.1. Toxicity

POTASSIUM PERMANGANATE

LC50 - for Fish 0,96 mg/l/96h Morone saxatilis
EC50 - for Crustacea 0,084 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 0,18 mg/l/72h Aphanizomenon flos-aquae

12.2. Persistence and degradability

POTASSIUM PERMANGANATE

Solubility in water > 10000 mg/l

Degradability: 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

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.

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14. Transport information

Not Applicable

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

7722-64-7

POTASSIUM PERMANGANATE (Manganese compounds, Manganese soluble compounds) POTASSIUM PERMANGANATE (Manganese compounds, Manganese soluble compounds)

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EPCRA 302 EHS TPQ:

No component(s) listed.

EPCRA 304 EHS RQ:

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

Massachussetts:

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

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:

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International Regulations

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Candadian WHMIS

Information not available

16. Other information

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

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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

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- 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
- 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
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy
- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication 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
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt 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.

Changes to previous review:

The following sections were modified:

09.