



CHONGQING CHANGYUAN CHEMICAL CORPORATION LIMITED  
Dujiaba industrial park, Rongchang county, Chongqing, 402460, China

SAFETY DATA SHEET

MSDE No.: CY/JS—43—2009

Date: Aug 17, 2009

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Name: Potassium permanganate  
Name of Manufacturer: CHONGQING CHANGYUAN CHEMICAL CORPORATION LIMITED  
Address: Dujiaba industrial park, Rongchang county, Chongqing, 402460, China  
Telephone Number: +86-023-46797156  
Facsimile Number: +86-023-46797190

2. HAZARDS IDENTIFICATION

Hazard description:



Xn Harmful  
O Oxidising  
N Dangerous for the environment

Information concerning particular hazards for human and environment:

R8 Contact with combustible material may cause fire.  
R 22 Harmful if swallowed  
R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS label elements

Symbols



Signal words Danger

Hazard statements  
H272 May intensify fire; oxidizer.  
H302 Harmful if swallowed.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements  
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  
P262 Do not get in eyes, on skin or on clothing.  
P280 Wear protective gloves/protective clothing/eye protection/face



protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P501 Dispose of contents/container to local / regional / national / international regulations.

---

### 3.COMPOSITION / INFORMATION ON INGREDIENTS

---

Chemical Name: Potassium permanganate

#: >99

CAS NO.: 7722-64-7

EINECS : 231-760-3

EU INDEX NO.: 025-002-00-9

UN NO: 1490

---

### 4.FIRST AID MEASURES

---

**Skin Contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Remove contaminated clothing and footwear. Caution: Solution may ignite certain textiles. Wash clothing and decontaminate footwear before reuse.

**Eye Contact:** In case of contact, immediately flush eyes with running water for at least 20 minutes. Remove any contact lenses and open eyes wide apart. Get medical aid immediately. Note to physician: Decomposition products are alkaline.

**Inhalation:** If inhaled, remove to fresh air at once. Loosen tight clothing such as a collar, tie, belt or waistband. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Ingestion:** Provide rest, warmth and fresh air. If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

---

### 5.FIRE FIGHTING MEASURES

---

**General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Strong oxidizer. Contact with other material may cause fire. Some oxidizer may react explosively with hydrocarbons (fuel). May accelerate burning if involved in a fire. Containers may explode when heated.

**Extinguishing Media:**

Use large quantities of water. Do not use dry chemicals, CO<sub>2</sub>, Halon or foams.

---

### 6. ACCIDENTAL RELEASE MEASURES

---

**General Information:**

Use proper personal protective equipment as indicated in Section 8. Avoid inhalation of dust and vapors. Avoid contact with skin and eyes. Provide adequate ventilation.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body. Avoid generating dusty conditions. Provide ventilation. Do not use combustible materials such as paper towels to clean up spill.

Spill clean up methods:

Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Flush contaminated with plenty of water. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

---

## 7.HANDLING AND STORAGE

---

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep from contact with clothing and other combustible materials. Discard contaminated shoes. Do not breathe dust. Do not breathe spray or mist. Inform laundry personnel of contaminant's hazards.

Storage:

Oxidiser storage. Do not store near combustible materials. Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from strong acids. Keep away from flammable liquids. Keep away from reducing agents. Avoid storage on wood floors.

---

## 8.EXPOSURE CONTROL/ PERSONAL PROTECTION

---

Exposure Limit: 0.2 mg/m<sup>3</sup> MAC (as MnO<sub>2</sub>)

Engineering Controls:

Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower

Personal Protective Equipment



Eyes:

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.

Skin: Wear appropriate protective gloves to prevent skin exposure



Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

---

Physical State:	Crystals
Color:	dark purple-bronze
Odor:	odorless
pH:	7-9 (20g/1 H <sub>2</sub> O)
Vapor Pressure:	Negligible
Vapor Density:	Not available
Evaporation Rate:	Not available
Viscosity:	Not available
Boiling Point:	Not applicable.
Freezing/Melting Point:	240 deg C ( 464.00°F )
Solubility in water:	6.4 g/100 ml @ 20°C
Specific Gravity/Density:	2.700 g/cm <sup>3</sup>
Molecular Formula:	KMnO <sub>4</sub>
Molecular Weight:	158.03

---

## 10. STABILITY AND REACTIVITY

---

Chemical Stability: Stable under normal temperatures and pressures

Conditions to Avoid:

Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time. Dust generation, temperatures above 150°C.

Incompatibilities with Other Materials:

Strong reducing agents, strong acids, alcohols, formaldehyde, peroxides, arsenites, mercurous salts, hypophosphites, combustible organics, sulfites, bromides, hydrochloric acid, charcoal, iodides, metal powders, ethylene glycol, organic materials, some metals, ferrous salts.

Decomposition Products: Oxygen, oxides of potassium, oxides of manganese.

---

## 11. TOXICOLOGICAL INFORMATION

---

LD50/LC50: RTECS:

**CAS# 7722-64-7:** Oral, mouse: LD50 = 2157 mg/kg; Oral, mouse: LD50 = 750 mg/kg; Oral, rat: LD50 = 750 mg/kg; Other: The estimated lethal human dose by ingestion is 10 grams, with death being delayed by up to one month: Oral, rat: LD50 = 1090 mg/kg. Oral, human: LDLo = 143 mg

INHALATION: Upper respiratory irritation

---



INGESTION: Irritating. May be absorbed in the body and cause dizziness, nausea and vomiting.

SKIN AND EYE CONTACT: Irritating to skin. Irritation of eyes and mucous membranes.

Carcinogenicity: Potassium permanganate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

## 12. ECOLOGICAL INFORMATION

Behaviors in environmental systems:

Mobility and bioaccumulation potential:

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

Ecotoxicological effects:

Remark: Very toxic for fish

Other information:

Bactericidal effect.

Hazard for drinking water supplies.

General notes:

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Very toxic for aquatic organisms.

## 13. DISPOSAL CONSIDERATIONS

GENERAL INFORMATION:

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority. Do not puncture or incinerate even when empty.

DISPOSAL METHODS:

Dispose of waste and residues in accordance with local authority requirements.

## 14. TRANSPORT INFORMATION

Shipping Name: POTASSIUM PERMANGANATE

Hazard Class: 5.1

UN Number: UN1490

Packing Group: II



UN NO. ROAD	1490	UK ROAD PACK GR	II
ADR CLASS NO.	5.1	ADR CLASS	Class 5.1: Oxidising substance
ASR PACK GROUP	II	HAZARD No.(ADR)	50
ADR LABEL NO.	5.1	HAZCHEM CODE	1Y
RID PACK GROUP	II	UN NO.SEA	1490
IMDG CLASS	5.1	IMDG PACK GR.	II
EMS	F-H,S-Q	MFAG	See Guide
MARINE POLLUTANT	NO.	UN NO.AIR	1490

---

**15 REGULATORY INFORMATION**


---

**LABELLING**

Harmful



Oxidising

Dangerous for the  
environment**RISK PHARSES**

- R8 Contact with combustible material may cause fire.  
 R22 Harmful if swallowed.  
 R50/53 Very toxic to aquatic organisms, may cause long-time adverse effects in the aquatic environment

**SAFETY PHRASES**

- S2 Keep out of the reach of children  
 S60 This material and its container must be disposed of as hazardous waste.  
 S61 Avoid release to the environment. Refer to special instructions/safety data sheets.
- H 272 Contact with combustile material may cause fire  
 H 302 Harmful if swallowed  
 H 400 Very toxic to aquatic life with long lasting effects  
 P 210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking  
 P 220 Keep/Store away from clothing/combustible materials.  
 P221 Take any precaution to avoid mixing with combustibles  
 P 262 Do not get in eyes, on skin or on clothing.  
 P 280.1-3 Wear protective gloves/protective clothing/eye protection/face protection.  
 P 301+312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P 501 Dispose of contents/container to local/regional/national/international regulations.

---

**16 .Other Information**


---

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of CHONGQING CHANGYUAN CHEMICAL CORPORATION LIMITED. It relates only to the specific material designated herein, and does not relate to use in combination with any other material or in any process. CHONGQING CHANGYUAN CHEMICAL CORPORATION LIMITED. assumes no legal responsibility for use of or reliance upon this information.