# SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.1 Creation Date: July 15, 2019 Revision Date: April 08, 2024

SEC	TION 1: Identification		
1.1	GHS Product identifier		
	Product name	4-Methoxyphenol	
1.2	Other means of identification		
	Product number Other names	150-76-5 p-Methoxyphenol; methylhydroquinone; p-Hydroxyanisole	
1.3 Recommended use of the chemical and restrictions on use		ical and restrictions on use	
	Identified uses Uses advised against	For laboratory and Industrial use only. no data available	
1.4	Supplier's details		
	Company Address Telephone	Zhongshan Greenrock Technology Co., Ltd. Jinsan Avenue, Sanjiao Town, Zhongshan City, Guangdong Province, China +86-2087066781	
1.5	Emergency phone number		
	Emergency phone number Service hours	+86-2087066781 'Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).	
SEC	<b>TION 2: Hazard identification</b>	1	

## 2.1 Classification of the substance or mixture

Acute toxicity - Category 4, Oral Eye irritation, Category 2 Skin sensitization, Category 1

## 2.2 GHS label elements, including precautionary statements

Pictogram(s)

Signal word	Warning
Hazard statement(s)	H302 Harmful if swallowed
	H319 Causes serious eye irritation
	H317 May cause an allergic skin reaction
Precautionary statement(s)	
Prevention	P264 Wash thoroughly after handling.
	P270 Do not eat, drink or smoke when using this product.
	P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing
	protection/
	P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
	P272 Contaminated work clothing should not be allowed out of the workplace.
Response	P301+P317 IF SWALLOWED: Get medical help.
	P330 Rinse mouth.
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove
	contact lenses, if present and easy to do. Continue rinsing.
	P302+P352 IF ON SKIN: Wash with plenty of water/
	P333+P317 If skin irritation or rash occurs: Get medical help.
	P321 Specific treatment (see on this label).
	P362+P364 Take off contaminated clothing and wash it before reuse.
Storage	none
Disposal	P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

## 2.3 Other hazards which do not result in classification

no data available

## SECTION 3: Composition/information on ingredients

## 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
4-Methoxyphenol	Mequinol	150-76-5	205-769-8	100%

## **SECTION 4: First-aid measures**

### 4.1 Description of necessary first-aid measures

If inhaled

Fresh air, rest.

Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap.

### Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

### Following ingestion

Rinse mouth. Give one or two glasses of water to drink. Refer for medical attention .

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

Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact Symptoms: Irritation eyes, skin, nose, throat, upper respiratory system; eye, skin burns; central nervous system depression Target Organs: Eyes, skin, respiratory system, central nervous system (NIOSH, 2016)

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Phenols and related compounds

## **SECTION 5: Fire-fighting measures**

### 5.1 Suitable extinguishing media

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

### 5.2 Specific hazards arising from the chemical

Combustible (NTP, 1992)

### 5.3 Special protective actions for fire-fighters

Use water spray, powder, alcohol-resistant foam, carbon dioxide.

### **SECTION 6: Accidental release measures**

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

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered sealable containers. Carefully collect remainder. Then store and dispose of according to local regulations.

## 6.2 Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered sealable containers. Carefully collect remainder. Then store and dispose of according to local regulations.

## 6.3 Methods and materials for containment and cleaning up

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

## **SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

NO open flames. Closed system, dust explosion-proof electrical equipment and lighting. Prevent deposition of dust. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

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

Separated from strong oxidants, strong bases, acid anhydrides and acid chlorides.Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### Occupational Exposure limit values

TLV: 5 mg/m3, as TWA

Biological limit values

no data available

## 8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the riskelimination area.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety goggles.

Skin protection

Protective gloves. Protective clothing.

### Respiratory protection

Use local exhaust or breathing protection.

Thermal hazards

no data available

## SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Solid. Flakes.
Colour	Coulourless to pale yellow.
Odour	Odor of caramel and phenol
Melting point/freezing point	57.2 °C.;135 °F.
Boiling point or initial boiling point and	242.8 °C. Atm. press.:1 013 hPa.;469 °F. Atm. press.:1 atm.
boiling range	
Flammability	Combustible Solid; under certain conditions, a dust cloud can probably explode if ignited by a spark or flame.
Lower and upper explosion	no data available
limit/flammability limit	
Flash point	90 °C. Atm. press.:1 029 hPa.
Auto-ignition temperature	421 °C.
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	Soluble (NTP, 1992)
Partition coefficient n-octanol/water	$\log Pow = 1.41$ . Temperature:23 °C.
Vapour pressure	0.009 hPa. Temperature:20 °C.
Density and/or relative density	1.55. Temperature:20 °C.
Relative vapour density	4.3 (vs air)
Particle characteristics	no data available

## SECTION 10: Stability and reactivity

## 10.1 Reactivity

Reacts with strong oxidants, strong bases, acid anhydrides and acid chlorides. The solution in water is a weak acid.

### 10.2 Chemical stability

no data available

## 10.3 Possibility of hazardous reactions

Dust explosion possible if in powder or granular form, mixed with air.HYDROQUINONE MONOMETHYL ETHER can react with oxidizing materials. (NTP, 1992)

## 10.4 Conditions to avoid

no data available

#### 10.5 Incompatible materials

Strong oxidizers, strong bases, acid chlorides, acid anhydrides.

#### 10.6 Hazardous decomposition products

When heated to decomposition it emits acrid smoke and fumes.

### **SECTION 11: Toxicological information**

### Acute toxicity

- Oral: LD50 Rat oral 1600 mg/kg
- Inhalation: no data available Dermal: no data available

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

Carcinogenicity

no data available

### Reproductive toxicity

no data available

### STOT-single exposure

The substance is irritating to the eyes and skin.

### STOT-repeated exposure

Repeated or prolonged contact may cause skin sensitization. The substance may have effects on the skin. This may result in depigmentation.

### Aspiration hazard

A harmful contamination of the air will not or will only very slowly be reached on evaporation of this substance at 20°C.

### **SECTION 12: Ecological information**

#### 12.1 Toxicity

- Toxicity to fish: LC50 Oncorhynchus mykiss (previous name: Salmo gairdneri) 28.5 mg/L 96 h. Toxicity to daphnia and other aquatic invertebrates: EC50 Daphnia magna 3 mg/L 48 h.
- Toxicity to algae: EC50 Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) -54.7 mg/L - 72 h.
- Toxicity to microorganisms: IGC50 Tetrahymena pyriformis 171.4 mg/L 40 h.

#### 12.2 Persistence and degradability

AEROBIC: 4-Methoxyphenol, present at 100 mg/L, reached 86% of its theoretical BOD in 4 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test which classified the compound as readily biodegradable(1). An acclimated mixed bacterial population reached 57% of the theoretical BOD after 5 days(2). Varying concentrations of an acclimated mixed bacterial population resulted in biodegradation rate constants of 4.2X10-2/day, 5.0X10-2/day, 8.0X10-2/day, 1.9X10-1/day, and 2.5X10-1/day for bacterial concentrations of 2.3X10+4, 2.3X10+5, 2.3X10+6, 2.3X10+7, and 2.3X10+8, cells/L, respectively(3). 4-Methoxyphenol was biodegraded by three activated sludges with rate constants of 7.88X10-4/hr, 4.03X10-4/hr, and 3.35X10-3/hr for a non-adapted sludge, a phenol-adapted sludge, and a cresol-adapted sludge, respectively(4). Using spectrophotometric evidence, aniline-adapted activated sludge degraded 4-methoxyphenol mainly via an ortho cleavage pathway(5); phenol- and m-cresol-adapted activated sludges degraded 4-methoxyphenol mainly via a meta cleavage pathway(5). 4-Methoxyphenol, at a concentration of 0.27 mg/L was removed 95% in 1 day and 89.6% in 2 days using an activated sludge inoculum(6). AEROBIC: 4-Methoxyphenol, present at 100 mg/L, reached 86% of its theoretical BOD in 4 weeks using an activated sludge inoculum at

#### 12.3 **Bioaccumulative potential**

An estimated BCF of 4 was calculated in fish for 4-methoxyphenol(SRC), using a log Kow of 1.41(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

#### 12.4 Mobility in soil

An experimental Koc of 55.7 was determined for adsorption to Brookston clay loam (pH 5.7, 8.8% organic content, 22.22 cation exchange capacity)(1). Using a Lucera-clay sample (0.5% organic carbon, 11 meq/100 g cation exchange capacity), a K value of 0.45 was measured(2) which corresponds to a Koc value of 90(3). According to a classification scheme(4), these Koc values suggest that 4methoxyphenol is expected to have high mobility in soil(SRC).

### 12.5 Other adverse effects

no data available

## **SECTION 13: Disposal considerations**

## 13.1 Disposal methods

### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

## **SECTION 14: Transport information**

## 14.1 UN Number

	ADR/RID: Not dangerous goods. (For reference only, please check.)	IMDG: Not dangerous goods. (For reference only, please check.)	IATA: Not dangerous goods. (For reference only, please check.)	
14.2	UN Proper Shipping Name			
	ADR/RID: Not dangerous goods. (For reference only, please check.)	IMDG: Not dangerous goods. (For reference only, please check.)	IATA: Not dangerous goods. (For reference only, please check.)	
14.3	Transport hazard class(es)			
	ADR/RID: Not dangerous goods. (For reference only, please check.)	IMDG: Not dangerous goods. (For reference only, please check.)	IATA: Not dangerous goods. (For reference only, please check.)	
14.4	Packing group, if applicable			
	ADR/RID: Not dangerous goods. (For reference only, please check.)	IMDG: Not dangerous goods. (For reference only, please check.)	IATA: Not dangerous goods. (For reference only, please check.)	
14.5	Environmental hazards			
	ADR/RID: No	IMDG: No	IATA: No	
14.6	Special precautions for user no data available			
14.7	Transport in bulk according to IMO instruments			

no data available

## **SECTION 15: Regulatory information**

## 15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
Mequinol	Mequinol Mequinol 1		205-769-8
European Inventory of Existing Commercial Chemical Substances (EINECS)			
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.
Korea Existing Chemicals List (KECL)			Listed.

## **SECTION 16: Other information**

Information on revision	
Creation Date	July 15, 2019
Revision Date	April 08, 2024

Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

### References

- IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- · IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- eChemPortal The Global Portal to Information on Chemical Substances by OECD, website: • http://www.echemportal.org/echemportal/index?pageID=0&request\_locale=en
- . CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp .
- ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp ٠
- ECHA - European Chemicals Agency, website: https://echa.europa.eu/

### Other Information

### Do NOT take working clothes home.

## Any questions regarding this SDS, Please send your inquiry to export@greenrockchem.com

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