

GPS Safety Summary 4-methoxy phenol

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1. General Statements

4-methoxy phenol is a white crystalline solid that is combustible but only poorly flammable. It dissolves in water and is sensitive to both light and air, indicating it may degrade or react upon exposure. It poses acute or chronic health hazards and is harmful to aquatic environments, highlighting the need for careful handling and disposal. Additionally, in finely powdered form, it carries a risk of dust explosion when airborne and exposed to an ignition source. Proper safety measures, including controlling dust generation and avoiding ignition sources, are essential when working with this substance.

2. Chemical identification.

Name :4-methoxy phenol

CAS number(s) :150-76-5 EC number :205-769-8 Molecular formula :C7H8O2

Structure :

3. Uses and Benefits

It is mainly used in organic synthesis as an intermediate for producing dyes, pharmaceuticals, and other specialty chemicals. It is also used in various industrial applications as an antioxidant to prevent polymer degradation, particularly in plastics and rubbers.

4. Physical / chemical properties

Property	Value	
Physical state :	Solid	
Colour :	white	
Odour :	Phenol odour.	
рН :	NA	
Melting point :	57 °C	
Boiling point :	243°C	
Flash point :	132 °C (open cup)	
Density:	1,55 g/cm³	
Solubility in Water:	40 g/l at 20°C	

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5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Harmful if swallowed.
Irritation / corrosion Skin / eye/ respiratory tract	May cause an allergic skin reaction. Causes serious eye irritation.
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure Oral / inhalation / dermal	NA
Genotoxicity / Mutagenicity	NA
Carcinogenicity	NA
Toxicity for reproduction	NA

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	No
Fate and behavior	Result
Persistence and degradability	Not rapidly degradable
Bioaccumulative potential	No additional information available

7. Exposure

Human health

4-methoxy phenol is hazardous if ingested, can trigger allergic skin reactions, and causes serious eye irritation. Proper handling, including avoiding ingestion and direct contact with skin and eyes, is essential to ensure safety. Use protective equipment and follow safety guidelines to minimize risks. The exposure must be kept as minimum as possible by the use of appropriate risk management measures suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers. Careless handling or accidental spillage of the chemical could result in exposure to potential hazardous levels of chemicals. Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

Environment:

Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. Spillage shall be quickly collected in the event of an accidental release. More information about release measures and accidental release measures are available in the extended safety data sheet.

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8. Risk Management Recommendations

Human health measures.

Organizational	A basic standard of occupational hygiene is recommended. Ensure operatives are well informed of the hazards and trained to minimise exposures. Ensure regular inspection and maintenance of equipment and machines. Handle and store according to the indications of the Safety Data Sheet.			
Protection	Eye protection:	Safety glasses		
	Skin and body protection:	Wear suitable protective clothing		
	Respiratory protection:	[In case of inadequate ventilation] wear respiratory protection.		
Engineering controls	Ensure good ventilation of the work station.			
Environment protective measures				
Avoid release to the environment				

9. First-aid measures

First-aid measures after inhalation: Remove the person to fresh air and keep them comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses,if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Rinse mouth. Call a poison center or a doctor if you feel unwell.

Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. **Unsuitable extinguishing media :** Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire: Toxic fumes may be release

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.

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Firefighting instructions : Fight fire from safe distance and protected location. Do not enter a fire area without proper protective equipment, including respiratory protection.

11. Accidental release measures

Protective equipment : safety goggles. protective gloves. Wear self-contained breathing apparatus and special tightly sealed suit.

Environmental precautions: Avoid release to the environment.

For containment: Using a clean shovel, put the material in a dry container and cover without compressing it.

12. Disposal consideration

Regional legislation (waste): Disposal must be done according to official regulations.

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations: Disposal must be done according to official regulations.

13. Handling and storage

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

Hygiene measures: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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14. Classification and Labeling

Hazard pictograms (CLP)



GHS07

Signal word (CLP) : Warning

Hazard statements (CLP) : H302 - Harmful if swallowed.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

Precautionary statements (CLP) : P261 - Avoid breathing dust, mist, spray, gas, vapours, fume.

P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product.

P272 - Contaminated work clothing should not be allowed out of the

workplace.

P280 - Wear protective clothing, eye protection, face protection, hearing

protection, protective gloves.

P301+P312 - IF SWALLOWED: Call doctor, a POISON CENTER if you

feel unwell.

15. Conclusion

4-Methoxy phenol is a white crystalline solid widely used in organic synthesis and industrial applications, notably as an antioxidant in plastics and rubbers. While it has valuable chemical uses, it poses several health and environmental hazards. It is harmful if ingested, can cause serious eye irritation, and may trigger allergic skin reactions. The substance is also sensitive to light and air, potentially degrading over time, and presents dust explosion risks in finely powdered form. Proper handling, storage, and disposal are critical to minimize exposure and environmental release. This includes using personal protective equipment, maintaining good ventilation, and adhering strictly to safety guidelines. In case of accidental exposure or spills, immediate and appropriate first-aid and containment measures must be followed. Overall, while 4-methoxy phenol offers significant industrial benefits, careful risk management is essential to ensure safety for workers and the environment.

16. Contact Information within company

Manufacturer

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This GPS safety summary is intended to give general information about the health, safety and environment and not intended to provide in-depth details. To obtain the most accurate and current

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information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.