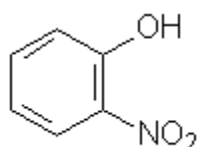


1. General Statements

O-nitrophenol is crystalline solid, characteristic odour which is orange in colour. Combustible substance, poorly flammable. Slightly soluble in water. Acute or chronic health hazards result from the substance. The substance is hazardous to the aquatic environment.

2. Chemical identification.

Name : O-nitrophenol
 CAS number(s) : 88-75-5
 EC number : 201-857-5
 Molecular formula : C₆H₅NO₃
 Structure :



3. Uses and Benefits

2-Nitrophenol serves as an intermediate in producing azo dyes, such as CI Solvent Red 8, used in coloring synthetic resins, lacquers, inks, and wood stains. It's also utilized in semi-permanent hair coloring products to achieve red and gold-blond shades. In pharmaceutical synthesis, 2-Nitrophenol is used to prepare o-nitrophenyl esters, which are valuable in peptide synthesis.

4. Physical / chemical properties

Property	Value
Physical state :	Solid
Colour :	yellow
Odour :	Phenol odour
pH :	NA
Melting point :	44 °C Atm. press.: 1013 hPa
Boiling point :	214 °C Atm. press.: 1013 hPa Decomposition: 'yes' Decomp. temp.: 180 °C
Flash point :	100.5 °C Atm. press.: 1013 hPa Remarks on result: 'other:'
Density :	1.495 g/cm ³ Type: 'density' Temp.: 20 °C
Solubility in Water:	2.1 g/l

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5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Harmful if inhaled.Harmful if swallowed.
Irritation / corrosion Skin / eye/ respiratory tract	Harmful in contact with skin.None under normal conditions. Dust from this product may cause 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	Yes
Fate and behavior	Result
Persistence and degradability	Not rapidly degradable
Bioaccumulative potential	No additional information available

7. Exposure

Human health

O-nitrophenol is Harmful if inhaled.Harmful if swallowed. It is Harmful in contact with skin.None under normal conditions. Dust from this product may cause eye irritation.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 potentially 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 insufficient ventilation, wear suitable respiratory equipment.
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. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact :Wash skin with plenty of water. Take off contaminated clothing.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

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

10. Fire-fighting measures

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 released.

Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. 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 : Dust mask, Protective gloves, Safety glasses, Wear suitable protective clothing

Environmental precautions : Avoid release to the environment.

For containment : Collect spillage.

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 : Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray.


Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

14. Classification and Labeling

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Hazard pictograms (GHS US)	:	
Signal word (GHS US)	:	Warning
Hazard statements (GHS US)	:	H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled H400 - Very toxic to aquatic life H410 - Very toxic to aquatic life with long lasting effects
Precautionary statements (GHS US)	:	P261 - Avoid breathing dust, fume, gas, mist, spray, vapours. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear protective clothing, eye and face protection. P301+P312 - If swallowed: Call a POISON CENTER, a doctor if you feel unwell. P302+P352 - water If on skin: Wash with plenty of Wash with water and soap. P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing. P312 - Call a POISON CENTER, a doctor if you feel unwell. P321 - Specific treatment (see supplemental first aid instruction on this label). P330 - Rinse mouth. P362+P364 - Take off contaminated clothing and wash it before reuse. P391 - Collect spillage. P501 - Dispose of hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

15. Conclusion

O-Nitrophenol is a yellow crystalline solid with a phenol-like odour, used primarily as a chemical intermediate in dyes, hair products, and pharmaceuticals. Although it has valuable industrial applications, it presents significant health and environmental hazards. There is a risk of a dust explosion if the following conditions are met the substance is given in very finely distributed form (powder, dust). The substance is whirled up in sufficient quantity in the air. An ignition source is present (flame, spark, electrostatic discharge, etc.) The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

16. Contact Information within company

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