



MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 4-NITROPHENOL

CAS Number: 100-02-7

1. IDENTIFICATION:

Product Code : 90976

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

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2. HAZARDS IDENTIFICATION:**Hazard classification**

Acute toxicity : Category 4 (Harmful if swallowed)

Acute toxicity : Category 4 (Harmful if inhaled)

Acute toxicity : Category 4 (Harmful in contact with skin)

**Specific target organ
toxicity - repeated
exposure, Kidney, Liver** : Category 2

Labels elements :

Hazard symbol :



Signal word : Danger

Hazard statement : Harmful if swallowed, in contact with skin or if inhaled. May cause damage to organs (Kidney, Liver) through prolonged or repeated exposure if swallowed.

Precautionary statement

Prevention : Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
No smoking. Keep container tightly closed. Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools. Take precautionary measures against static discharge.

Response : IF exposed or concerned: Get medical advice/ attention.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Storage : Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are



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opened must be carefully resealed and kept upright to prevent leakage.

Disposal : 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.

Other hazards which do not result in GHS classification : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

Ingredient	CAS Number	Percent	Hazardous
4-Nitrophenol	100-02-7	NLT 99.5%	Yes

4. FIRST AID MEASURES:

General information : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

Ingestion : Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Inhalation : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen.

Skin contact : Get medical attention if symptoms persist.

Skin contact : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Eye contact : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Most important symptoms/effects, acute and delayed : The most important known symptoms and effects are described in the labelling.

Indication of immediate medical attention and special treatment needed : No data available

5. FIRE FIGHTING MEASURES:

General information

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water, Foam, Carbon dioxide (CO₂), Dry powder.



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Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

Specific hazards arising from the chemical : Carbon oxides, Nitrogen oxides (NOx) Combustible.
Fire may cause evolution of: nitrogen oxides, Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapours possible in the event of fire.

Special protective equipment and precautions for firefighters

Special firefighting procedures : Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Special protective equipment for fire-fighters : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up : Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk.
Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

Environmental precautions : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE:

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/ face protection.
Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities : Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks.

8. EXPOSURE CONTROLS PERSONAL PROTECTION:

Appropriate engineering controls : No data available

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Wear safety glasses with side shields (or goggles).



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Hand protection	:	Chemical resistant gloves.
Other	:	Wear suitable protective clothing.
Respiratory protection	:	In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapor cartridge. Recommended Filter type: Filter type P2
Hygiene measures	:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance	:	White to slight yellow crystalline or granular powder or chunks.
Odor	:	Characteristic
Solubility	:	Soluble in Alcohols, ethers, chloroform and water.
Formula	:	$C_6H_5NO_3$
Molecular Weight	:	139.11 g/mol
Density	:	1.48 g/cm ³ at 25°C
pH	:	4.4 at 24° C
% Volatiles by volume @ 21C (70F)	:	No data available
Boiling Point	:	279 °C
Melting Point	:	112.0 - 115.0 °C
Flash Point	:	169 °C
Vapor Density (Air=1)	:	No data available
Vapor Pressure	:	9.2 hPa at 165.0 °C 0.8 hPa at 120.0 °C
Evaporation Rate (BuAc=1)	:	No data available

10. STABILITY AND REACTIVITY:

	:	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
Reactivity	:	The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
Chemical stability	:	Material is stable under ambient conditions..
Possibility of hazardous reactions	:	Risk of explosion with: Reducing agents, conc. sulfuric acid. Risk of ignition or formation of inflammable gases or vapours with: alkalines, alkali hydroxides.



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Conditions to avoid	: Strong heating
Incompatible materials	: No data available
Hazardous decomposition products	: In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION:

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product	: LD 50 (Rat): 667 mg/kg
Dermal Product	: LD 50 (Rabbit): 1.024 mg/kg
Inhalation Product	: LC 50 (Rat): 4.7 mg/l
Repeated dose toxicity Product	: No data available.
Skin corrosion/irritation Product	: No data available.
Serious eye damage/eye irritation Product	: No data available.
Respiratory or skin sensitization Product	: No data available.
Carcinogenicity Product	: No data available.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans	: No data available.
US. National Toxicology Program (NTP) Report on Carcinogens	: No data available.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	: No data available.
Germ cell mutagenicity	Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Result: negative
Reproductive toxicity Product	: No data available
Specific target organ toxicity - single exposure Product	: No data available
Specific target organ toxicity - repeated exposure Product	: Ingestion - May cause damage to organs through prolonged or repeated exposure. - Kidney, Liver



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Aspiration hazard Product : No data available.

Other effects : No data available.

12. ECOLOGICAL INFORMATION:**Ecotoxicity****Acute hazards to the aquatic environment**

Fish Product : LC 50 (Danio rerio (zebra fish) – 10.4 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 - Daphnia magna (Water flea) - 22 mg/l - 48 h

Toxicity to algae : EC50 - Desmodesmus subspicatus (green algae) – 23.7 mg/l - 96 h

Toxicity to bacteria : EC5 - Pseudomonas putida – 0.9 mg/l - 16 h

Chronic hazards to the aquatic environment

Fish Product : No data available.

Aquatic invertebrates Product : No data available.

Toxicity to Aquatic Plants Product: : No data available.

Persistence and degradability

Biodegradation Product : Readily biodegradable

BOD/COD ratio Product : No data available.

Bioaccumulative potential

Bioconcentration factor (BCF) Product : Pimephales promelas (fathead minnow) - 28 d - 0,0441 mg/l(4-Nitrophenol)
Bioconcentration factor (BCF): 280

Partition coefficient n-octanol / water (log Kow) Product : No data available.

Mobility in soil : No data available.

Other adverse effects : Biological effects: Fungicide Discharge into the environment must be avoided. Do not empty into drains.

13. DISPOSAL CONSIDERATION:

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.

Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.



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14. TRANSPORT INFORMATION:

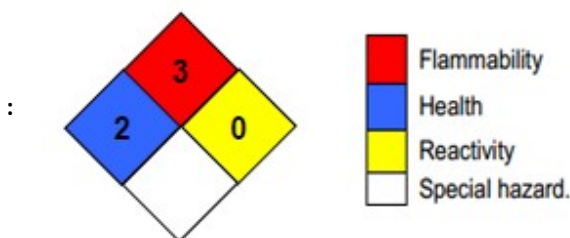
	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR/RID	UN 1663	4-Nitrophenol	6.1	III	No
IMDG	UN 1663	4-Nitrophenol	6.1	III	No
IATA	UN 1663	4-Nitrophenol	6.1	III	No

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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