

SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-EP-00387
Product Name	o-Nitrophenol AR
CAS No.	88-75-5
Category	Fine Chemicals
Synonyms	O-Nitrophenol
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email sales@clearsynth.com for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

- Skin irritation (Category 2)
- Serious eye damage/eye irritation (Category 2)
- Acute toxicity (Category 4)

2.2 Label Elements

Signal Word: Warning



Hazard Statement(s)

Code	Statement
H302+H312+H332	Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.
H302	Harmful if swallowed.

H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	Not available
H400	Not available
H410	Not available
H412	Not available
H361	Not available
H370	Not available
H318	Causes serious eye damage.

Precautionary Statement(s)

Code	Statement
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P264+P265	Not available
P270	Not available
P271	Use only outdoors or in a well-ventilated area.
P273	Not available
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P317	Not available
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present.
P317	Not available
P319	Get medical help if you feel unwell.
P321	Specific treatment (see ... on this label).
P330	Not available
P332+P317	If skin irritation occurs: Get medical help.

P337+P317	If eye irritation persists: Get medical help.
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Not available
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations
P203	Not available
P260	Not available
P308+P316	Not available
P318	Not available
P305+P354+P338	Not available

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : o-Nitrophenol AR

CAS Number : 88-75-5

Molecular Formula : C6H5NO3

Molecular Weight : 139.1

Parent Chemical : -

Synonyms : O-Nitrophenol

Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures

General advice: Remove contaminated clothing and shoes. Seek medical attention if symptoms persist.

Inhalation: Move person to fresh air. If breathing is difficult, seek medical attention.

Skin contact: Wash with plenty of soap and water. Get medical attention if irritation persists.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.

Continue rinsing. Seek medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting unless directed by medical personnel. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Not available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. No data available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: Not available.

5.3 Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective gear. Avoid inhalation of combustion products. Cool containers with water spray if exposed to fire.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dust. Avoid contact with skin and eyes. Use appropriate personal protective equipment. Ensure adequate ventilation.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Avoid release to the environment. Prevent entry into drains, sewers, or waterways.

6.3 Methods and material for containment and cleaning up

Avoid dust formation. Collect spillage using suitable means (e.g., sweep carefully or use HEPA-filtered vacuum). Place in a suitable, closed container for disposal. Clean contaminated area.

6.4 Reference to other sections

See Section 8 for personal protective equipment and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid formation of dust and aerosols. Avoid contact with skin, eyes, and clothing. Do not breathe dust. Use with adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Store in a tightly closed container in a cool, dry, well-ventilated place. Protect from moisture. Keep away from incompatible materials. Incompatibilities: Not available.

7.3 Specific end use(s)

Fine chemical / laboratory use. No data available.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits: Not available.

Biological limit values: Not available.

8.2 Exposure controls

Engineering controls: Provide adequate ventilation. Use local exhaust where dust may be generated.

Personal protective equipment (PPE):

- Eye/face protection: Safety glasses with side shields or chemical splash goggles.
- Skin protection: Protective gloves. Protective clothing as appropriate.
- Respiratory protection: If ventilation is inadequate or dust is generated, use appropriate respiratory protection.
- Hygiene measures: Wash hands after handling. Remove contaminated clothing and wash before reuse.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	10.5
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available

Property	Value
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

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10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat. Dust generation. Other conditions: Not available.

10.5 Incompatible materials

Not available.

10.6 Hazardous decomposition products

Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: IDENTIFICATION: The nitrophenol isomers are water soluble solids that are moderately acidic in water as a result of disassociation. 2-Nitrophenol is used as an intermediate in the synthesis of a number of organophosphate pesticides and some medical products. HUMAN EXPOSURE: 2-Nitrophenol is slightly irritating to the skin but non-irritating to the eye. ANIMAL/PLANT STUDIES: There is limited information concerning the toxicological profile for 2-nitrophenol. A dose dependent increase in the formation of methemoglobin was seen in cats after oral exposure to 2-nitrophenol. This compound has not been fully tested for genotoxicity. Insufficient data are available on 2-nitrophenol to allow any conclusions to be made about its possible mutagenicity. In one study, which had several limitations, no skin tumors were noted after dermal application of 2-nitrophenol over 12 weeks. Carcinogenicity studies using the oral or inhalation routes were not available for 2-nitrophenol. In an oral study with rats, 2-nitrophenol induced developmental effects in the offspring only at doses that also produced maternal toxicity. In these studies, the fetuses were not examined for internal malformations. From valid test results available on the toxicity of 2-nitrophenol to various aquatic organisms, the nitrophenols can be classified as substances exhibiting moderate to high toxicity in the aquatic compartment. The lowest effect concentration for *Scenedesmus subspicatus*,

96 hr EC50: 0.39 mg/L 2-nitrophenol. The available data indicate only a moderate toxicity potential of nitrophenols in the terrestrial environment. LD50: 334 mg/kg (Oral, Rat) (T14) LD50: 378 mg/kg (Intraperitoneal, Mouse) (T14) LD50: 100 mg/kg (Intravenous, Dog) (T14)

- Skin corrosion/irritation: No data available.

- Serious eye damage/eye irritation: No data available.

- Respiratory or skin sensitization: No data available.

- Germ cell mutagenicity: IDENTIFICATION: The nitrophenol isomers are water soluble solids that are moderately acidic in water as a result of disassociation. 2-Nitrophenol is used as an intermediate in the synthesis of a number of organophosphate pesticides and some medical products. HUMAN EXPOSURE: 2-Nitrophenol is slightly irritating to the skin but non-irritating to the eye. ANIMAL/PLANT STUDIES: There is limited information concerning the toxicological profile for 2-nitrophenol. A dose dependent increase in the formation of methemoglobin was seen in cats after oral exposure to 2-nitrophenol. This compound has not been fully tested for genotoxicity. Insufficient data are available on 2-nitrophenol to allow any conclusions to be made about its possible mutagenicity. In one study, which had several limitations, no skin tumors were noted after dermal application of 2-nitrophenol over 12 weeks. Carcinogenicity studies using the oral or inhalation routes were not available for 2-nitrophenol. In an oral study with rats, 2-nitrophenol induced developmental effects in the offspring only at doses that also produced maternal toxicity. In these studies, the fetuses were not examined for internal malformations. From valid test results available on the toxicity of 2-nitrophenol to various aquatic organisms, the nitrophenols can be classified as substances exhibiting moderate to high toxicity in the aquatic compartment. The lowest effect concentration for *Scenedesmus subspicatus*, 96 hr EC50: 0.39 mg/L 2-nitrophenol. The available data indicate only a moderate toxicity potential of nitrophenols in the terrestrial environment.

- Carcinogenicity: IDENTIFICATION: The nitrophenol isomers are water soluble solids that are moderately acidic in water as a result of disassociation. 2-Nitrophenol is used as an intermediate in the synthesis of a number of organophosphate pesticides and some medical products. HUMAN EXPOSURE: 2-Nitrophenol is slightly irritating to the skin but non-irritating to the eye. ANIMAL/PLANT STUDIES: There is limited information concerning the toxicological profile for 2-nitrophenol. A dose dependent increase in the formation of methemoglobin was seen in cats after oral exposure to 2-nitrophenol. This compound has not been fully tested for genotoxicity. Insufficient data are available on 2-nitrophenol to allow any conclusions to be made about its possible mutagenicity. In one study, which had several limitations, no skin tumors were noted after dermal application of 2-nitrophenol over 12 weeks. Carcinogenicity studies using the oral or inhalation routes were not available for 2-nitrophenol. In an oral study with rats, 2-nitrophenol induced developmental effects in the offspring only at doses that also produced maternal toxicity. In these studies, the fetuses were not examined for internal malformations. From valid test results available on the toxicity of 2-nitrophenol to various aquatic organisms, the nitrophenols can be classified as substances exhibiting moderate to high toxicity in the aquatic compartment. The lowest effect concentration for *Scenedesmus subspicatus*, 96 hr EC50: 0.39 mg/L 2-nitrophenol. The available data indicate only a moderate toxicity potential of nitrophenols in the terrestrial environment. Inadequate information to assess carcinogenic potential

- Reproductive toxicity: IDENTIFICATION: The nitrophenol isomers are water soluble solids that are moderately acidic in water as a result of disassociation. 2-Nitrophenol is used as an intermediate in the synthesis of a number of organophosphate pesticides and some medical products. HUMAN EXPOSURE: 2-Nitrophenol is slightly irritating to the skin but non-irritating to the eye. ANIMAL/PLANT STUDIES: There is limited information concerning the toxicological profile for 2-nitrophenol. A dose dependent increase in the formation of methemoglobin was seen in cats after oral exposure to 2-nitrophenol. This compound has not been fully tested for genotoxicity. Insufficient data are available on 2-nitrophenol to allow any conclusions to be made about its possible mutagenicity. In one study, which had several limitations, no skin tumors were noted after dermal application of 2-nitrophenol over 12 weeks. Carcinogenicity studies using the oral or inhalation routes were not available for 2-nitrophenol. In an oral study with rats, 2-nitrophenol induced developmental effects in the offspring only at doses that also produced maternal toxicity.

In these studies, the fetuses were not examined for internal malformations. From valid test results available on the toxicity of 2-nitrophenol to various aquatic organisms, the nitrophenols can be classified as substances exhibiting moderate to high toxicity in the aquatic compartment. The lowest effect concentration for *Scenedesmus subspicatus*, 96 hr EC50: 0.39 mg/L 2-nitrophenol. The available data indicate only a moderate toxicity potential of nitrophenols in the terrestrial environment.

- STOT-single exposure: No data available.

- STOT-repeated exposure: /LABORATORY ANIMALS: Subchronic or Prechronic Exposure/ The effect of 2-nitrophenol in rats was studied in a 28-day study ... five animals per sex per dose group; daily oral doses of 0, 22, 67, or 200 mg/kg body weight via gavage. Food intake decreased in high-dose males and in mid- and high-dose females, and final body weight decreased non-significantly in all dosed animals. The absolute liver and kidney weights were decreased in mid-dose animals, and the relative testes weight increased in low- and mid-dose males and decreased in high-dose males. In all dosed animals, the relative and absolute weights of the adrenal glands increased. The hematological examination, clinical chemistry, and histopathological examination of the major organs and tissues did not give any indication of a substance-related toxic effect in comparison with controls.

/LABORATORY ANIMALS: Subchronic or Prechronic Exposure/ In Sprague-Dawley rats (15 per sex per group), no mortality was observed after exposure to 0, 5, 30, or 60 mg 2-nitrophenol vapor/cu m (whole body exposure; to generate the vapor, melted 2-nitrophenol was used) for 6 hr/day, 5 days/week, over a period of 4 weeks. Except for squamous metaplasia of the epithelium lining the maxilloturbinates and nasoturbinates in all high-dose animals, the clinical and histopathological examinations gave no consistent exposure-related effects. The methemoglobin values determined after the 11th exposure were significantly increased only in low-dose animals (males: 1.0, 2.3, 1.8, and 1.6%; females: 2.0, 4.1, 2.1, and 1.1%), but were within control values at the end of the study.

- Aspiration hazard: No data available.

Likely routes of exposure

- IDENTIFICATION: The nitrophenol isomers are water soluble solids that are moderately acidic in water as a result of disassociation. 2-Nitrophenol is used as an intermediate in the synthesis of a number of organophosphate pesticides and some medical products. HUMAN EXPOSURE: 2-Nitrophenol is slightly irritating to the skin but non-irritating to the eye. ANIMAL/PLANT STUDIES: There is limited information concerning the toxicological profile for 2-nitrophenol. A dose dependent increase in the formation of methemoglobin was seen in cats after oral exposure to 2-nitrophenol. This compound has not been fully tested for genotoxicity. Insufficient data are available on 2-nitrophenol to allow any conclusions to be made about its possible mutagenicity. In one study, which had several limitations, no skin tumors were noted after dermal application of 2-nitrophenol over 12 weeks.

Carcinogenicity studies using the oral or inhalation routes were not available for 2-nitrophenol. In an oral study with rats, 2-nitrophenol induced developmental effects in the offspring only at doses that also produced maternal toxicity. In these studies, the fetuses were not examined for internal malformations. From valid test results available on the toxicity of 2-nitrophenol to various aquatic organisms, the nitrophenols can be classified as substances exhibiting moderate to high toxicity in the aquatic compartment. The lowest effect concentration for *Scenedesmus subspicatus*, 96 hr EC50: 0.39 mg/L 2-nitrophenol. The available data indicate only a moderate toxicity potential of nitrophenols in the terrestrial environment.

Symptoms related to the physical, chemical and toxicological characteristics

- IDENTIFICATION: The nitrophenol isomers are water soluble solids that are moderately acidic in water as a result of disassociation. 2-Nitrophenol is used as an intermediate in the synthesis of a number of organophosphate pesticides and some medical products. HUMAN EXPOSURE: 2-Nitrophenol is slightly irritating to the skin but non-irritating to the eye. ANIMAL/PLANT STUDIES: There is limited information concerning the toxicological profile for 2-nitrophenol. A dose dependent increase in the formation of methemoglobin was seen in cats after oral exposure to 2-nitrophenol. This compound has not been fully tested for genotoxicity. Insufficient data are available

on 2-nitrophenol to allow any conclusions to be made about its possible mutagenicity. In one study, which had several limitations, no skin tumors were noted after dermal application of 2-nitrophenol over 12 weeks. Carcinogenicity studies using the oral or inhalation routes were not available for 2-nitrophenol. In an oral study with rats, 2-nitrophenol induced developmental effects in the offspring only at doses that also produced maternal toxicity. In these studies, the fetuses were not examined for internal malformations. From valid test results available on the toxicity of 2-nitrophenol to various aquatic organisms, the nitrophenols can be classified as substances exhibiting moderate to high toxicity in the aquatic compartment. The lowest effect concentration for *Scenedesmus subspicatus*, 96 hr EC50: 0.39 mg/L 2-nitrophenol. The available data indicate only a moderate toxicity potential of nitrophenols in the terrestrial environment.

SECTION 12: Ecological information

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12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Not available.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

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13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations. Do not discharge to drains.

Contaminated packaging: Dispose of as unused product or according to local regulations.

Waste codes: Not available.

SECTION 14: Transport information

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14.1 UN number

Not available.

14.2 UN proper shipping name

Not available.

14.3 Transport hazard class(es)

Not available.

14.4 Packing group

Not available.

14.5 Environmental hazards

Not available.

14.6 Special precautions for user

Not available.

14.7 Transport in bulk according to IMO instruments

Not available.

SECTION 15: Regulatory information

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15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Not available.

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

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Product name: o-Nitrophenol AR

Catalog no.: CS-EP-00387

CAS no.: 88-75-5

Synonyms: O-Nitrophenol

Supplier: Clearsynth Labs Ltd., Mumbai, India

Emergency phone: +91-22-245045900

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Revision date: Not available.

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