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Safety Data Sheet

Section 1. Identification of the substance/mixture and of the company/undertaking

Product identifier:
Product name: 4-Nitroaniline(p-)
SDS No. : 5466E-2
Recommended use of the chemical and restrictions on use
Research and Development
Details of the supplier of the safety data sheet
Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.
Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN
Division: Chemical Safety Management Department
Telephone number: +81-6-6946-8061
FAX: +81-6-6946-1607

Section 2. Hazards identification

Classification of the substance or mixture
HEALTH HAZARDS
Acute toxicity (Oral): Category 4
Reproductive toxicity: Category 2
Specific target organ toxicity - single exposure: Category 1 (blood)
Specific target organ toxicity - single exposure: Category 3 (Narcotic effects)
Specific target organ toxicity - repeated exposure: Category 1 (blood)
ENVIRONMENT HAZARDS
Hazardous to the aquatic environment, short-term (acute): Category 3
Hazardous to the aquatic environment, long-term (chronic): Category 2
(Note) GHS classification without description: Not classified/Classification not possible
Label elements
Hazard pictograms:



Signal word: Danger
Hazard statements
H302 Harmful if swallowed
H361 Suspected of damaging fertility or the unborn child
H370 Causes damage to organs (blood)
H336 May cause drowsiness or dizziness
H372 Causes damage to organs through prolonged or repeated exposure (blood)
H402 Harmful to aquatic life
H411 Toxic to aquatic life with long lasting effects
Precautionary statements
Prevention
P203 Obtain, read and follow all safety instructions before use.
P273 Avoid release to the environment.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P271 Use only outdoors or in a well-ventilated area.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P270 Do not eat, drink or smoke when using this product.

Response

P391 Collect spillage.
P308 + P316 IF exposed or concerned: Get emergency medical help immediately.
P318 IF exposed or concerned, get medical advice.
P319 Get medical help if you feel unwell.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P330 IF SWALLOWED: Rinse mouth.
P301 + P317 IF SWALLOWED: Get medical help.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Specific danger/hazard

Health hazard

See "11. Toxicological Information".

Section 3. Composition/information on ingredients

Substance/mixture:

Substance

Ingredient name	Content (%)	CAS RN	ENCS	Chemical formula
4-Nitroaniline(p-)	≧98	100-01-6	3-392	NO2C6H4NH2

Note : The figures shown above are not the specifications of the product.

Section 4. First aid measures

Descriptions of first aid measures

General measures

IF exposed or concerned, get medical advice.
Get medical help if you feel unwell.
IF exposed or concerned: Get emergency medical help immediately.

IF INHALED

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Get medical help if you feel unwell.

IF ON SKIN

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water or shower.
If skin irritation or rash occurs: Get medical help.

IF IN EYES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical help.

IF SWALLOWED

Rinse mouth.

IF SWALLOWED: Get medical help.

IF SWALLOWED: Get medical help if you feel unwell.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

See "10.Stability and Reactivity".

Advice for firefighters

Special extinguishing method

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses, low areas or rivers. To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for containment and cleaning up

Liquid: Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

Solid: Sweep up, place in a bag and hold for waste disposal.

Preventive measures for secondary accident

Collect spillage.

Section 7. Handling and storage

Precautions for safe handling

Engineering measures

(Measures to prevent operator exposure)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Measures to prevent fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Local ventilation/general ventilation)
Exhaust/ventilator should be available.
(Precautions)
Avoid contact with skin.
Avoid contact with eyes.
Advice on safe handling
Obtain, read and follow all safety instructions before use.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash hands and contaminated parts thoroughly after handling.
When using do not eat, drink or smoke.
Avoidance of contact
See Section 10: Stability and Reactivity.
Advice on general occupational hygiene
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Conditions for safe storage, including any incompatibilities
Conditions for safe storage
Keep container tightly closed.
Store locked up. (P405)
Store in a cool, dry place. Do not store in direct sunlight.
Storage in accordance with local/national regulation.
Safe packaging material
Use closed unbreakable containers.

Section 8. Exposure controls/personal protection

Control parameters
Permissible concentration
Administrative Control Levels and Concentration standard value
Concentration standard value TWA: 3mg/m3
Occupational exposure limit values
The Japan Society for Occupational Health
3mg/m3 (skin)
ACGIH
TWA: 3mg/m3 (MeHb-emia; liver dam; eye irr)
Notation
Skin
Appropriate engineering controls
Do not use in areas without adequate ventilation.
Eye wash station should be available.
Washing facilities should be available.
Individual protection measures, such as personal protective equipment
Recommend to use protective equipment in conformity with the standards.
Use appropriate protective equipment in accordance with local/national regulation.
Respiratory protection
Wear respiratory protection (dust-proof mask/gas mask). Select chemical cartridge corresponding to type of gases when using a gas mask.
Hand protection
Wear impervious protective glove.

Eye/face protection

Wear eye/face protection. Wear safety goggles in cases gas is generated.

Skin and body protection

Wear protective clothing.

Section 9. Physical and Chemical Properties

Physical state: Crystals or powder
Color: Yellow to light yellow-red
Odor data is not available.
Melting point/Freezing point: 148℃
Boiling point or initial boiling point and boiling range: (4-Nitroaniline(p-))332℃
Flammability data is not available.
Lower and upper explosion limit/flammability limit data is not available.
Flash point: (4-Nitroaniline(p-))199℃
Auto-ignition temperature data is not available.
Decomposition temperature data is not available.
pH data is not available.
Kinematic viscosity data is not available.
Solubility:

Solubility in water: 0.08 g/100 ml (18.5℃)
Solubility in solvent data is not available.

Partition coefficient n-octanol/water (log value): 2.66
Vapor pressure: 0.2 Pa (20℃)
Density and/or relative density: 1.4 g/cm3
Relative vapor density (Air=1): 4.8
Particle characteristics data is not available.

Other information

Other information is not available.

Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Dust explosion possible if in powder or granular form, mixed with air.
May explode on heating. On combustion, forms toxic fumes of nitrogen oxides. Reacts with strong acids, strong oxidants and strong reducing agents. Reacts with organic materials in the presence of moisture. This generates fire hazard. (ICSC 0308)

Conditions to avoid

Contact with incompatible materials.
Contact with fire source.

Incompatible materials

Strong acids, Strong oxidizing agents, Strong reducing agents

Hazardous decomposition products

Carbon oxides, Nitrogen oxides

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[Product]

Category 4, Harmful if swallowed

[Data for components of the product]

[NITE-CHRIP]

rat LD50: 750 mg/kg (source: NITE)

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenicity

[Data for components of the product]

[ACGIH]

A4: Not Classifiable as a Human Carcinogen

Reproductive toxicity

[Product]

Category 2, Suspected of damaging fertility or the unborn child

[Data for components of the product]

[NITE-CHRIP]

Category 2 (source: NITE)

Specific target organ toxicity - single exposure

[Product]

Category 1, Causes damage to organs

Category 3, May cause drowsiness or dizziness

[Data for components of the product]

[NITE-CHRIP]

Category 1 (blood), Category 3 (Narcotic effects) (source: NITE)

Specific target organ toxicity - repeated exposure

[Product]

Category 1, Causes damage to organs through prolonged or repeated exposure

[Data for components of the product]

[NITE-CHRIP]

Category 1 (blood) (source: NITE)

Aspiration hazard data is not available.

Information on other hazards

May cause lung disorders by massive inhalation of powdered substance.
-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

Section 12. Ecological Information

Toxicity

Aquatic toxicity

[Product]

Category 3, Harmful to aquatic life

Category 2, Toxic to aquatic life with long lasting effects

[Data for components of the product]
Hazardous to the aquatic environment, short-term (acute)
[NITE-CHRIP]
Crustacea (Daphnia magna) 48-hour EC50: 22 mg/L (source: NITE)
Hazardous to the aquatic environment, long-term (chronic)
[NITE-CHRIP]
Algae (Pseudokirchneriella subcapitata) 72-hour NOEC: 0.94 mg/L (source: NITE)

Water solubility
0.08 g/100 mL (18.5℃) (source: ICSC, 2001)

Persistence and degradability
[Data for components of the product]
Not rapidly degradable (Degradation rate: 0% (by BOD)) (source: NITE)

Bioaccumulative potential
[Data for components of the product]
log Pow: 2.66 (source: ICSC, 2001)

Mobility in soil
Mobility in soil data is not available.

Other adverse effects
Ozone depleting chemical data is not available.

Section 13. Disposal considerations

Waste treatment methods

Waste from residues
Avoid release to the environment.
Dispose of contents/container as industrial waste. Accordance with local/national regulation.

Section 14. Transport Information

UNRTDG
UN number : UN1661
UN Proper Shipping Name : NITROANILINES (o-, m-, p-)
Transport hazard class(es) : 6.1
Packing group : II

IMDG Code (International Maritime Dangerous Goods Regulations)
UN number : UN1661
UN Proper Shipping Name : NITROANILINES (o-, m-, p-)
Transport hazard class(es) : 6.1
Packing group : II

IATA (Dangerous Goods Regulations)
UN number : UN1661
UN Proper Shipping Name : NITROANILINES (o-, m-, p-)
Transport hazard class(es) : 6.1
Hazard labels : Toxic
Packing group : II

Environmental hazards
Marine pollutants (yes/no) : yes
Environmentally hazardous substance/mixture (yes/no) : yes

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Section 15. Regulatory Information

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

U.S. Toxic Substances Control Act (TSCA) Inventory

Chemicals listed in TSCA Inventory

Applicable

Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

Section 16. Other information

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 23rd edit., 2023 UN
IMDG Code, 2024 Edition (Incorporating Amendment 42-24)
IATA Dangerous Goods Regulations (67th Edition) 2026
2024 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2026 TLVs and BEIs. (ACGIH)
JIS Z 7252 : 2025
JIS Z 7253 : 2025
Recommendation of occupational exposure limits (2024-2025) (JSOH)
Supplier's data/information

General Disclaimer

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Unauthorized translation or modification is prohibited.
Please provide SDS to customers for selling or transferring.
All chemicals have unknown hazard. Handle the product with care.
This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.
The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.
The GHS classification data given here is based on current Data published in Japan (National Institute of Technology and Evaluation (NITE) Chemical Risk Information Platform (NITE-CHRIP), up to FY2024).