



TCI (Shanghai) DEVELOPMENT CO., LTD.

Revision number: 1

Revision date: 09/06/2019

Page 1 of 5

Revision date: 09/06/2019

SAFETY DATA SHEET

1. IDENTIFICATION

Product name: 4-Nitrotoluene
Product code: N0276
Company: TCI (Shanghai) DEVELOPMENT CO., LTD.
Address: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China
Responsible Department: Sales Department
Telephone: +86-(0)21-67121386
Fax: +86-(0)21-67121385
e-mail: Sales-CN@TCIchemicals.com
Emergency telephone: 0532-83889090
Revision number: 1

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

PHYSICAL HAZARDS

Not classified

HEALTH HAZARDS

Acute toxicity (Oral)

Category 4

Acute toxicity (Inhalation)

Category 2

Specific target organ toxicity

Blood

- Single exposure [Category 1]

Specific target organ toxicity

Liver Blood Immune system

- Repeated exposure [Category 2]

ENVIRONMENTAL HAZARDS

Acute aquatic hazard

Category 2

Long-term aquatic hazard

Category 2

Label elements

Pictograms or hazard symbols



Signal word

Danger

Hazard statements

Harmful if swallowed

Fatal if inhaled

Causes damage to organs : Blood

May cause damage to organs through prolonged or

repeated exposure : Liver Blood Immune system

Toxic to aquatic life

Toxic to aquatic life with long lasting effects

Precautionary statements

[Prevention]

Do not breathe dust, fume, mist, vapors or spray.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Do not eat, drink or smoke when using this product.

Wash hands and face thoroughly after handling.

Wear respiratory protection.

[Response]

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Immediately call a POISON CENTER or doctor.

If exposed or concerned: Call a POISON CENTER or doctor.

Collect spillage.

[Storage]

Store in a well-ventilated place. Keep container tightly closed.

[Disposal]

Store locked up.

Dispose of contents and container in accordance with local, regional, national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance
Components: 4-Nitrotoluene
Percent: >99.0%(GC)
CAS RN: 99-99-0
Chemical Formula: C₇H₇NO₂

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
Skin contact: Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician.
Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Call a POISON CENTER or doctor/physician.
Ingestion: Call a POISON CENTER or doctor/physician. Rinse mouth.
Protection of first-aiders: A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, foam, water spray, carbon dioxide.
Specific hazards arising from the chemical: Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.
Precautions for firefighters: Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.
Special protective equipment for firefighters: When extinguishing fire, be sure to wear personal protective equipment

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions: Be careful not to let it flow into rivers, etc., since adverse effects on the environment are concerned.
Methods and materials for containment and cleaning up: Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical measures: Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling.
Use a closed system if possible. Use a local exhaust if dust or aerosol will be generated.

Advice on safe handling: Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up.

Packaging material: Store away from incompatible materials such as oxidizing agents. Comply with laws.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Install a closed system or local exhaust. Also install safety shower and eye bath.

Exposure limits:

ACGIH TLV(TWA): 2 ppm (skin)

OSHA PEL(TWA): 5 ppm (skin)

Personal protective equipment

Respiratory protection: Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.

Hand protection: Impervious gloves.

Eye protection: Safety goggles. A face-shield, if the situation requires.

Skin and body protection: Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Solid

Form: Crystal - Powder

Colour: Very pale yellow - Pale yellow green

Odour: Weakly Aromatic

pH: No data available

Melting point/freezing point: 53°C

Boiling point/range: 238°C

Flash point: No data available

Flammability or explosive limits:

Lower: 1.6%

Upper: No data available

Vapour pressure: 0.016kPa/20°C

Vapour density: 4.72

Relative density: No data available

Solubility(ies):

[Water] Insoluble (0.035g/100mL, 20°C)

[Other solvents]

Soluble: Ether, Alcohols, Benzene, Acetone, Chloroform

Log Pow: 2.41

Autoignition temperature: 450°C

10. STABILITY AND REACTIVITY

Chemical stability: Stable under proper conditions.

Possibility of hazardous reactions: No special reactivity has been reported.

Incompatible materials: Oxidizing agents, Acids, Bases, Reducing agents

Hazardous decomposition products: Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	ihl-rat LC50:975 mg/m ³ orl-mus LD50:1231 mg/kg orl-rat LD50:1960 mg/kg skn-rat LD50:>16 g/kg
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Germ cell mutagenicity:	cyt-ham-ovr 500 mg/L dnr-bcs 5 mg/disc dns-rat-lvr 100 ug/L mmo-sat 10 ug/plate (+/-S9)
Carcinogenicity:	orl-mus TDLo:507.15g/kg/105W-C orl-rat TDLo:80850mg/kg/105W-C Group 3 (Not classifiable as carcinogenic to humans)
IARC =	No data available
NTP =	No data available
Reproductive toxicity:	ipr-rat TDLo:30 mg/kg (1D pre) orl-rat TDLo:65793 mg/kg (13W male)
RTECS Number:	XT3325000

12. ECOLOGICAL INFORMATION

Ecotoxicity:	
Fish:	48h LC50:74 ppm (Oryzias latipes) 96h LC50:37 mg/L (Oryzias latipes)
Crustacea:	48h EC50:4.3 mg/L (Daphnia magna)
Algae:	72h EC50:5.5 mg/L (Selenastrum capricornutum)
Persistence / degradability:	0.8% (by BOD) , 2.5% (by UV-VIS)
Bioaccumulative potential(BCF):	3.7 - 7.2 (conc. 0.1 ppm) , 4.5 - 8.0 (conc. 0.01 ppm)
Mobility in soil	
Log Pow:	2.41
Soil adsorption (Koc):	153, 464
Henry's Law (PaM³/mol):	5.1

13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

Hazards Class:	6.1: Toxic substance.
UN-No:	3446
Proper shipping name:	Nitrotoluenes, solid
Packing group:	II
Marine pollutant	Y

15. REGULATORY INFORMATION

Regulations on the Control over Safety of Dangerous Chemicals (State Council announces on January 26, 2002 and revised on February 16,2011): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

This product is included in the list of dangerous chemicals(2015)/Serial No.: 2266

16. OTHER INFORMATION

The reference company name of written contents

Company: TCI (Shanghai) DEVELOPMENT CO., LTD.
Address: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China
Department: Technical Information Department
Emergency telephone: 0532-83889090
Fax: +86-(0)21-67121385

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.