

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : 2,3-Dinitrotoluene

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No 1272/2008

Carcinogenicity (Category 1B)

Genetic mutagenicity (Category 2)

Reproductive toxicity (Category 2)

Specific target organ toxicity - repeated exposure (Category 2)

Acute aquatic toxicity (Category 1)

Chronic aquatic toxicity (Category 1)

Acute toxicity, Inhalation (Category 3)

Acute toxicity, Dermal (Category 3)

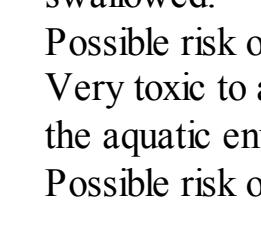
Acute toxicity, Oral (Category 3)

According to European Directive 67/548/EEC as amended.

May cause cancer. Possible risk of impaired fertility. Possible risk of irreversible effects. Toxic by inhalation, in contact with skin and if swallowed. Harmful: danger of serious damage to health by prolonged exposure if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

H373

May cause damage to organs through prolonged or repeated exposure.

H301

Toxic if swallowed.

H311

Toxic in contact with skin.

H331

Toxic if inhaled.

H341

Suspected of causing genetic defects.

H350

May cause cancer.

H410

Very toxic to aquatic life with long lasting effects.

H361f

Suspected of damaging fertility.

Precautionary statement(s)

P201

Obtain special instructions before use.

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P273

Avoid release to the environment.

P280

Wear protective gloves/ protective clothing.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P311

Call a POISON CENTER or doctor/ physician.

Hazard symbol(s)

T

Toxic

N

Dangerous for the environment

R-phrase(s)

R45

May cause cancer.

R23/24/25

Also toxic by inhalation, in contact with skin and if swallowed.
Also harmful: danger of serious damage to health by prolonged exposure if swallowed.

R48/22

Possible risk of irreversible effects.

R68

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R50/53

Possible risk of impaired fertility.

R62

Avoid exposure - obtain special instructions before use.

S53

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S45

This material and its container must be disposed of as hazardous waste.

S60

Avoid release to the environment. Refer to special instructions/ Safety data sheets.

S61

Restricted to professional users.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C7H6NO4

Molecular Weight : 182,13 g/mol

CAS-No.	EC-No.	Classification	Concentration
2,3-Dinitrotoluene 602-01-7	210-013-5	Carc. 1B; Mut. 2; Repr. 2; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; Acute Tox. 3; H373, H301, H311, H331, H341, H350, H410, H361f T, N, Carc. Cat. 2, Repr. Cat. 3, Mut. Cat. 3, R45 - R23/24/25 - R48/22 - R62 - R68 - R50/53	-

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid exposure - obtain special instructions before use. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form solid

Safety data

pH no data available

Melting point 59 - 61 °C - lit.

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility no data available

Partition coefficient: log Pow: 0,617

n-octanol/water

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

no data available

Materials to avoid

Oxidizing agents, Reducing agents, Strong bases

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat: 911 mg/kg

LD50 Intravenous - rat: 911 mg/kg (general depressed activity).

Skin corrosion/irritation

Skin - rabbit - Mild skin irritation - 24 h

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

Possible human carcinogen

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a human carcinogen.

Reproductive toxicity

Suspected human reproductive toxicant

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12. ECOLOGICAL INFORMATION

Toxicity

To