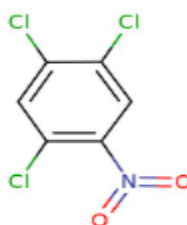


### 1. General Statements

1,2,4-Trichloro-5-nitrobenzene is crystalline, yellowish, faint aromatic odour solid. It is a combustible substance, poorly flammable. Practically insoluble in water. Acute or chronic health hazards result from the substance. The substance is hazardous to the aquatic environment.

### **2. Chemical identification.**

Name : 1,2,4-Trichloro-5-nitrobenzene  
CAS number(s) : 89-69-0  
EC number : 201-931-7  
Molecular formula : C<sub>6</sub>H<sub>2</sub>Cl<sub>3</sub>NO<sub>2</sub>  
Structure :



### **3. Uses and Benefits**

It is used as a reagent in chemical reactions.

### 4. Physical / chemical properties

Property	Value
Physical state :	Solid
Colour :	Colourless
Odour :	Odourless
pH :	6.5
Melting point :	49 – 58 °C
Boiling point :	288 °C
Flash point :	> 100 °C
Density :	1.79 g/cm <sup>3</sup> at 25°C
Solubility in Water:	< 0.1 g/100ml

## GPS Safety Summary

### 1,2,4-Trichloro-5-nitrobenzene

CL-4:PUBLIC

#### 5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal )	Toxic if swallowed, in contact with skin or if inhaled
Irritation / corrosion Skin / eye/ respiratory tract	NA
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure Oral / inhalation / dermal	May cause damage to organs through prolonged or repeated exposure
Genotoxicity / Mutagenicity	NA
Carcinogenicity	NA
Toxicity for reproduction	NA

#### 6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	Yes
Fate and behavior	Result
Persistence and degradability	Non degradable in the soil.
Bioaccumulative potential	No bioaccumulation data available.

#### 7. Exposure

##### Human health

1,2,4-Trichloro-5-nitrobenzene is very toxic to aquatic life, is very toxic to aquatic life with long lasting effects, is toxic if swallowed, is harmful in contact with skin and is harmful if inhaled. The exposure must be kept as minimum as possible by the use of appropriate risk management measures suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers. Careless handling or accidental spillage of the chemical could result in exposure to potentially hazardous levels of chemicals. Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

##### Environment

Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. Spillage shall be quickly collected in the event of an accidental release. More information about release measures and accidental release measures are available in the extended safety data sheet.

# GPS Safety Summary

## 1,2,4-Trichloro-5-nitrobenzene

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### 8. Risk Management Recommendations

#### Human health measures

Organizational	A basic standard of occupational hygiene is recommended. Ensure operatives are well informed of the hazards and trained to minimise exposures. Ensure regular inspection and maintenance of equipment and machines. Handle and store according to the indications of the Safety Data Sheet.	
Protection	Eye protection:	Face shield (EN 166). In case of dust production: protective goggles (EN 166)
	Skin and body protection:	In case of dust production: head/neck protection. Protective clothing (EN 14605 or EN 13034). In case of dust production: dustproof clothing (EN 13982)
	Respiratory protection:	Dust production: dust mask with filter type P3. High dust production: self-contained breathing apparatus (EN 136 + EN 137)
Engineering controls	Ensure good ventilation of the work station.	
Environment protective measures		
Avoid release to the environment		

### 9. First-aid measures

**First-aid measures after inhalation:**Remove the victim into fresh air.

First-aid measures after skin contact:Soap may be used. Do not apply (chemical) neutralizing agents without medical advice. Remove clothing before washing.

**First-aid measures after eye contact:**Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice.

**First-aid measures after ingestion :**Rinse mouth with water. Give nothing to drink. The victim is fully conscious: immediately induce vomiting. Induce vomiting by giving a 0.9 % saline solution. Take the container/vomit to the doctor/hospital. Ingestion of large quantities: immediately to hospital. Call Poison Information Centre ([www.big.be/antigif.html](http://www.big.be/antigif.html)).

# GPS Safety Summary

## 1,2,4-Trichloro-5-nitrobenzene

CL-4:PUBLIC

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### 10. Fire-fighting measures

#### **Extinguishing media**

**Suitable extinguishing media:** Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.

**Unsuitable extinguishing media :** Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher..

#### **Special hazards arising from the substance or mixture**

**Hazardous decomposition products in case of fire:** On heating/burning: release of toxic and corrosive gases/vapours (hydrogen chloride, nitrous vapours, phosgene, carbon monoxide - carbon dioxide).

#### **Advice for firefighters**

**Precautionary measures fire:** Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.

**Firefighting instructions:** Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

### 11. Accidental release measures

**Protective equipment :** Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Reactivity hazard: self-contained breathing apparatus (EN 136 + EN 137). Reactivity hazard: gas-tight suit (EN 943).

**Environmental precautions:** Prevent soil and water pollution. Prevent spreading in sewers.

**For containment :** Contain released product, collect/pump into suitable containers. If reacting: dilute toxic gas/vapour with water spray. Take account of toxic/corrosive precipitation water. Knock down/dilute dust clouds with water spray. Powdered form: no compressed air for pumping over spills.

### 12. Disposal consideration

**Regional legislation (waste) :** Disposal must be done according to official regulations.

**Waste treatment methods :** Dispose of contents/container in accordance with licensed collector's sorting instructions.

**Sewage disposal recommendations :** Disposal must be done according to official regulations.

# GPS Safety Summary

## 1,2,4-Trichloro-5-nitrobenzene

CL-4:PUBLIC

### 13. Handling and storage

**Precautions for safe handling:** Avoid raising dust. In a finely divided state: use spark-/explosionproof appliances. Keep away from naked flames/heat. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Powdered form: no compressed air for pumping over. Keep the container tightly closed.

**Hygiene measures :**Observe normal hygiene standards.

### 14. Classification and Labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled  
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US)

: P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310 - If swallowed: Immediately call a poison center or doctor.  
P302+P352 - If on skin: Wash with plenty of water.  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.  
P311 - Call a poison center or doctor.  
P312 - Call a poison center or doctor if you feel unwell.  
P314 - Get medical advice/attention if you feel unwell.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P322 - Specific treatment (see supplemental first aid instruction on this label)  
P330 - Rinse mouth.  
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 15. Conclusion

1,2,4-Trichloro-5-nitrobenzene is crystalline, yellowish,faint aromatic odour solid .It is a combustible substance, poorly flammable.Practically insoluble in water.Acute or chronic health hazards result from the substance.The substance is hazardous to the aquatic environment.Care should be taken to avoid releases of these products to sewage ,drainage systems and water bodies.The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

## GPS Safety Summary

### 1,2,4-Trichloro-5-nitrobenzene

CL-4:PUBLIC

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#### 16. Contact Information within company

##### **Manufacturer**

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This GPS safety summary is intended to give general information about the health, safety and environment and not intended to provide in-depth details. To obtain the most accurate and current information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.