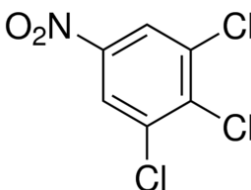


### MATERIAL SAFETY DATA SHEET (MSDS)

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

##### 1.1. Product identifier

Product form : Substance  
:  
EC-No. : 243-511-6  
CAS-No. : 20098-48-0  
Product code : D0231  
Formula : C<sub>6</sub>H<sub>2</sub>Cl<sub>3</sub>NO<sub>2</sub>  
Chemical structure :



##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

###### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

###### 1.2.2. Uses advised against

No additional information available

##### 1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.  
107 Wode House Road, Jehangir Villa, Colaba  
400005 Mumbai - INDIA  
T +91 22 6663 6663 - F +91 22 6663 6699  
[info@lobachemie.com](mailto:info@lobachemie.com) - [www.lobachemie.com](http://www.lobachemie.com)

##### 1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), H302  
Category 4  
Acute toxicity (dermal), H312  
Category 4  
Acute toxicity (inhal.), H332  
Category 4  
Skin corrosion/irritation, H315  
Category 2  
Serious eye damage/eye H319

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irritation, Category 2  
Specific target organ toxicity — Single exposure, Category 3,  
Respiratory tract irritation

H335

Full text of H statements : see section 16

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

:



GHS07

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H335 - May cause respiratory irritation.

Precautionary statements (CLP)

: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

| Name                           | Product identifier                         | %   |
|--------------------------------|--------------------------------------------|-----|
| 1,2,3-Trichloro-5-nitrobenzene | (CAS-No.) 20098-48-0<br>(EC-No.) 243-511-6 | 100 |

Full text of R- and H-statements: see section 16

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### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                       |                                                                                                                                                                                                             |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.                                               |
| First-aid measures after skin contact | : Brush off loose particles from skin. Take off contaminated clothing and wash it before reuse. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact  | : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.                            |
| First-aid measures after ingestion    | : Rinse mouth out with water. If you feel unwell, seek medical advice.                                                                                                                                      |

### 4.2. Most important symptoms and effects, both acute and delayed

|                                     |                                                         |
|-------------------------------------|---------------------------------------------------------|
| Symptoms/effects after inhalation   | : Harmful if inhaled. May cause respiratory irritation. |
| Symptoms/effects after skin contact | : Harmful in contact with skin. Causes skin irritation. |
| Symptoms/effects after eye contact  | : Causes serious eye irritation.                        |
| Symptoms/effects after ingestion    | : Harmful if swallowed.                                 |

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                |                                                                                   |
|--------------------------------|-----------------------------------------------------------------------------------|
| Suitable extinguishing media   | : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ). |
| Unsuitable extinguishing media | : Do not use a heavy water stream.                                                |

### 5.2. Special hazards arising from the substance or mixture

No additional information available

### 5.3. Advice for firefighters

|                                |                                                                        |
|--------------------------------|------------------------------------------------------------------------|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. |
|--------------------------------|------------------------------------------------------------------------|

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

|                      |                                   |
|----------------------|-----------------------------------|
| Emergency procedures | : Evacuate unnecessary personnel. |
|----------------------|-----------------------------------|

#### 6.1.2. For emergency responders

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Protective equipment | : Use personal protective equipment as required. |
| Emergency procedures | : Stop release.                                  |

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

|                         |                                        |
|-------------------------|----------------------------------------|
| Methods for cleaning up | : Clear up rapidly by scoop or vacuum. |
|-------------------------|----------------------------------------|

### 6.4. Reference to other sections

No additional information available

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

|                               |                                                                                                                         |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | : Do not get in eyes, on skin, or on clothing.                                                                          |
| Hygiene measures              | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. |

#### 7.2. Conditions for safe storage, including any incompatibilities

|                    |                                                                                                            |
|--------------------|------------------------------------------------------------------------------------------------------------|
| Storage conditions | : Store in original container. Keep container tightly closed. Store in a dry place. Protect from moisture. |
|--------------------|------------------------------------------------------------------------------------------------------------|

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

|                          |                                                                    |
|--------------------------|--------------------------------------------------------------------|
| Hand protection          | : protective gloves                                                |
| Eye protection           | : Chemical goggles or safety glasses                               |
| Skin and body protection | : Wear suitable protective clothing                                |
| Respiratory protection   | : [In case of inadequate ventilation] wear respiratory protection. |

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|                                            |                            |
|--------------------------------------------|----------------------------|
| Physical state                             | : Solid                    |
| Molecular mass                             | : 226.44 g/mol             |
| Colour                                     | : Pale yellow crystalline. |
| Odour                                      | : No data available        |
| Odour threshold                            | : No data available        |
| pH                                         | : No data available        |
| Relative evaporation rate (butylacetate=1) | : No data available        |
| Melting point                              | : 68 - 71 °C               |
| Freezing point                             | : No data available        |
| Boiling point                              | : No data available        |
| Flash point                                | : No data available        |
| Auto-ignition temperature                  | : No data available        |
| Decomposition temperature                  | : No data available        |
| Flammability (solid, gas)                  | : No data available        |

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|                                  |                     |
|----------------------------------|---------------------|
| Vapour pressure                  | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density                 | : No data available |
| Solubility                       | : No data available |
| Log Pow                          | : No data available |
| Viscosity, kinematic             | : No data available |
| Viscosity, dynamic               | : No data available |
| Explosive properties             | : No data available |
| Oxidising properties             | : No data available |
| Explosive limits                 | : No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                                   |                                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------------------------|
| Acute toxicity                    | : Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation: Harmful if inhaled. |
| Skin corrosion/irritation         | : Causes skin irritation.                                                                           |
| Serious eye damage/irritation     | : Causes serious eye irritation.                                                                    |
| Respiratory or skin sensitisation | : Not classified                                                                                    |
| Germ cell mutagenicity            | : Not classified                                                                                    |
| Carcinogenicity                   | : Not classified                                                                                    |
| Reproductive toxicity             | : Not classified                                                                                    |
| STOT-single exposure              | : May cause respiratory irritation.                                                                 |

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STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

No additional information available

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

|               |        |
|---------------|--------|
| UN-No. (ADR)  | : 1578 |
| UN-No. (IMDG) | : 1578 |
| UN-No. (IATA) | : 1578 |
| UN-No. (ADN)  | : 1578 |
| UN-No. (RID)  | : 1578 |

#### 14.2. UN proper shipping name

|                             |                              |
|-----------------------------|------------------------------|
| Proper Shipping Name (ADR)  | : CHLORONITROBENZENES, SOLID |
| Proper Shipping Name (IMDG) | : CHLORONITROBENZENES, SOLID |
| Proper Shipping Name (IATA) | : Chloronitrobenzenes, solid |
| Proper Shipping Name (ADN)  | : CHLORONITROBENZENES, SOLID |
| Proper Shipping Name (RID)  | : CHLORONITROBENZENES, SOLID |

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|                                       |                                                      |
|---------------------------------------|------------------------------------------------------|
| Transport document description (ADR)  | : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II, (D/E) |
| Transport document description (IMDG) | : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II        |
| Transport document description (IATA) | : UN 1578 Chloronitrobenzenes, solid, 6.1, II        |
| Transport document description (ADN)  | : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II        |
| Transport document description (RID)  | : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II        |

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 6.1

Danger labels (ADR) : 6.1



#### IMDG

Transport hazard class(es) (IMDG) : 6.1

Danger labels (IMDG) : 6.1



#### IATA

Transport hazard class(es) (IATA) : 6.1

Hazard labels (IATA) : 6.1



#### ADN

Transport hazard class(es) (ADN) : 6.1

Danger labels (ADN) : 6.1



#### RID

Transport hazard class(es) (RID) : 6.1

Danger labels (RID) : 6.1



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### 14.4. Packing group

|                      |      |
|----------------------|------|
| Packing group (ADR)  | : II |
| Packing group (IMDG) | : II |
| Packing group (IATA) | : II |
| Packing group (ADN)  | : II |
| Packing group (RID)  | : II |

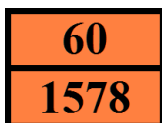
### 14.5. Environmental hazards

|                               |                                          |
|-------------------------------|------------------------------------------|
| Dangerous for the environment | : No                                     |
| Marine pollutant              | : No                                     |
| Other information             | : No supplementary information available |

### 14.6. Special precautions for user

#### - Overland transport

|                                                                         |               |
|-------------------------------------------------------------------------|---------------|
| Classification code (ADR)                                               | : T2          |
| Special provisions (ADR)                                                | : 279         |
| Limited quantities (ADR)                                                | : 500g        |
| Excepted quantities (ADR)                                               | : E4          |
| Packing instructions (ADR)                                              | : P002, IBC08 |
| Special packing provisions (ADR)                                        | : B4          |
| Mixed packing provisions (ADR)                                          | : MP10        |
| Portable tank and bulk container instructions (ADR)                     | : T3          |
| Portable tank and bulk container special provisions (ADR)               | : TP33        |
| Tank code (ADR)                                                         | : SGAH        |
| Tank special provisions (ADR)                                           | : TU15, TE19  |
| Vehicle for tank carriage                                               | : AT          |
| Transport category (ADR)                                                | : 2           |
| Special provisions for carriage - Packages (ADR)                        | : V11         |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : CV13, CV28  |
| Special provisions for carriage - Operation (ADR)                       | : S9, S19     |
| Hazard identification number (Kemler No.)                               | : 60          |
| Orange plates                                                           | :             |



|                               |       |
|-------------------------------|-------|
| Tunnel restriction code (ADR) | : D/E |
| EAC code                      | : 2X  |

#### - Transport by sea

|                                 |           |
|---------------------------------|-----------|
| Special provisions (IMDG)       | : 279     |
| Packing instructions (IMDG)     | : P002    |
| IBC packing instructions (IMDG) | : IBC08   |
| IBC special provisions (IMDG)   | : B21, B4 |
| Tank instructions (IMDG)        | : T3      |
| Tank special provisions (IMDG)  | : TP33    |
| EmS-No. (Fire)                  | : F-A     |
| EmS-No. (Spillage)              | : S-A     |
| Stowage category (IMDG)         | : A       |

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Properties and observations (IMDG) : Yellow crystals. Melting point: approximately 30°C to 80°C. Toxic if swallowed, by skin contact or by dust inhalation.

### - Air transport

PCA Excepted quantities (IATA) : E4  
PCA Limited quantities (IATA) : Y644  
PCA limited quantity max net quantity (IATA) : 1kg  
PCA packing instructions (IATA) : 669  
PCA max net quantity (IATA) : 25kg  
CAO packing instructions (IATA) : 676  
CAO max net quantity (IATA) : 100kg  
Special provisions (IATA) : A113  
ERG code (IATA) : 6L

### - Inland waterway transport

Classification code (ADN) : T2  
Special provisions (ADN) : 279, 802  
Limited quantities (ADN) : 500 g  
Excepted quantities (ADN) : E4  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP, EP, TOX, A  
Ventilation (ADN) : VE02  
Number of blue cones/lights (ADN) : 2

### - Rail transport

Classification code (RID) : T2  
Special provisions (RID) : 279  
Excepted quantities (RID) : E4  
Packing instructions (RID) : P002, IBC08  
Special packing provisions (RID) : B4  
Mixed packing provisions (RID) : MP10  
Portable tank and bulk container instructions (RID) : T3  
Portable tank and bulk container special provisions (RID) : TP33  
Tank codes for RID tanks (RID) : SGAH  
Special provisions for RID tanks (RID) : TU15  
Transport category (RID) : 2  
Special provisions for carriage – Packages (RID) : W11  
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW28, CW31  
Colis express (express parcels) (RID) : CE9  
Hazard identification number (RID) : 60

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

1,2,3-Trichloro-5-nitrobenzene is not on the REACH Candidate List  
1,2,3-Trichloro-5-nitrobenzene is not on the REACH Annex XIV List

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### 15.1.2. National regulations

#### Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

#### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of R-, H- and EUH-statements:

|                           |                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------|
| Acute Tox. 4 (Dermal)     | Acute toxicity (dermal), Category 4                                                        |
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4                                                        |
| Acute Tox. 4 (Oral)       | Acute toxicity (oral), Category 4                                                          |
| Eye Irrit. 2              | Serious eye damage/eye irritation, Category 2                                              |
| Skin Irrit. 2             | Skin corrosion/irritation, Category 2                                                      |
| STOT SE 3                 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H302                      | Harmful if swallowed.                                                                      |
| H312                      | Harmful in contact with skin.                                                              |
| H315                      | Causes skin irritation.                                                                    |
| H319                      | Causes serious eye irritation.                                                             |
| H332                      | Harmful if inhaled.                                                                        |
| H335                      | May cause respiratory irritation.                                                          |

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## Safety Data Sheet

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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*