

### 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 Index-No. : 602-006-00-4  
EC-No. : 200-663-8  
CAS-No. : 67-66-3  
Product code : 00076  
Formula : CHCl<sub>3</sub>  
Chemical structure :



Synonyms : Trichloromethane

##### 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  
Use of the substance/mixture : Laboratory chemicals

###### 1.2.2. Uses advised against

No additional information available

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

SPAN LAB  
UNIT NO. 14, SKY INDUSTRIAL ESTATE, WALIV, VASAI (E)  
401208 Mumbai - INDIA  
PH: +91 9820509929  
[info@spanlab.in](mailto:info@spanlab.in) [www.spanlab.in](http://www.spanlab.in)

#### SECTION 2: Hazards identification

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

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

Acute toxicity (oral), Category 4 H302  
Acute toxicity (inhal.), Category 3 H331  
Skin corrosion/irritation, Category 2 H315  
Serious eye damage/eye H319

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irritation, Category 2  
Carcinogenicity, Category 2 H351  
Reproductive toxicity, Category 2 H361d  
Specific target organ toxicity — Single exposure, Category 3, Narcosis H336  
Specific target organ toxicity — Repeated exposure, Category 1 H372

Full text of H statements : see section 16

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

Carc.Cat.3; R40  
Xn; R22  
Xn; R48/20/22  
Xi; R38

Full text of R-phrases: see section 16

### 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) :



GHS06

GHS08

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H302 - Harmful if swallowed.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H331 - Toxic if inhaled.  
H336 - May cause drowsiness or dizziness.  
H351 - Suspected of causing cancer.  
H361d - Suspected of damaging the unborn child.  
H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (CLP) :

P260 - Do not breathe 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.  
P311 - Call a POISON CENTER/doctor

## 2.3. Other hazards

No additional information available

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

|              |                 |
|--------------|-----------------|
| Name         | : CHLOROFORM AR |
| CAS-No.      | : 67-66-3       |
| EC-No.       | : 200-663-8     |
| EC Index-No. | : 602-006-00-4  |

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

#### 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 | : Gently wash with plenty of soap and water. If skin irritation 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                    | : Causes damage to organs. |
| Symptoms/effects after skin contact | : Causes skin 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 extinguishing media containing water.                                |

#### 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.                                  |

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### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Clean up immediately by sweeping or vacuum. Clean contaminated surfaces with an excess of water.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapours/spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

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

Storage conditions : Store in original container. Store in a well-ventilated place. Store in a dry place. Protect from sunlight.

### 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 : Wear respiratory protection.

## SECTION 9: Physical and chemical properties

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

Physical state : Liquid  
Molecular mass : 119.38 g/mol  
Colour : Clear Colorless.  
Odour : sweet pleasant.  
Odour threshold : No data available  
pH : No data available  
Relative evaporation rate (butylacetate=1) : 11.6  
Melting point : -63 °C

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|                                  |                           |
|----------------------------------|---------------------------|
| Freezing point                   | : No data available       |
| Boiling point                    | : 60.5 - 61.5             |
| Flash point                      | : No data available       |
| Auto-ignition temperature        | : No data available       |
| Decomposition temperature        | : 290 °C                  |
| Flammability (solid, gas)        | : No data available       |
| Vapour pressure                  | : 213.3 hPa at 20°C       |
| Relative vapour density at 20 °C | : 4.12                    |
| Relative density                 | : No data available       |
| Density                          | : 1.492 g/cm <sup>3</sup> |
| Solubility                       | : Water: Slightly soluble |
| Log Pow                          | : 1.97                    |
| Viscosity, kinematic             | : No data available       |
| Viscosity, dynamic               | : 0.58 cP @ 20 °C         |
| 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

Air contact. Direct sunlight. Heat.

### 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. Inhalation: Toxic if inhaled.

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|                                   |   |
|-----------------------------------|---|
| 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                   | : Suspected of causing cancer.                                    |
| Reproductive toxicity             | : Suspected of damaging the unborn child.                         |
| STOT-single exposure              | : May cause drowsiness or dizziness.                              |
| STOT-repeated exposure            | : Causes damage to organs through prolonged or repeated exposure. |
| Aspiration hazard                 | : Not classified  |

| CHLOROFORM AR (67-66-3) |                          |
|-------------------------|--------------------------|
| Viscosity, kinematic    | 0.389 mm <sup>2</sup> /s |

Potential adverse human health effects and symptoms : Harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

| CHLOROFORM AR (67-66-3) |      |
|-------------------------|------|
| Log Pow                 | 1.97 |

### 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

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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### SECTION 14: Transport information

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

#### 14.1. UN number

|               |        |
|---------------|--------|
| UN-No. (ADR)  | : 1888 |
| UN-No. (IMDG) | : 1888 |
| UN-No. (IATA) | : 1888 |
| UN-No. (ADN)  | : 1888 |
| UN-No. (RID)  | : 1888 |

#### 14.2. UN proper shipping name

|                                       |                                     |
|---------------------------------------|-------------------------------------|
| Proper Shipping Name (ADR)            | : CHLOROFORM                        |
| Proper Shipping Name (IMDG)           | : CHLOROFORM                        |
| Proper Shipping Name (IATA)           | : Chloroform                        |
| Proper Shipping Name (ADN)            | : CHLOROFORM                        |
| Proper Shipping Name (RID)            | : CHLOROFORM                        |
| Transport document description (ADR)  | : UN 1888 CHLOROFORM, 6.1, III, (E) |
| Transport document description (IMDG) | : UN 1888 CHLOROFORM, 6.1, III      |
| Transport document description (IATA) | : UN 1888 Chloroform, 6.1, III      |
| Transport document description (ADN)  | : UN 1888 CHLOROFORM, 6.1, III      |
| Transport document description (RID)  | : UN 1888 CHLOROFORM, 6.1, III      |

#### 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 |
|----------------------------------|-------|

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Danger labels (ADN) : 6.1



### RID

Transport hazard class(es) (RID) : 6.1

Danger labels (RID) : 6.1



### 14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

### 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) : T1

Limited quantities (ADR) : 5I

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : MP19

Portable tank and bulk container instructions (ADR) : T7

Portable tank and bulk container special provisions (ADR) : TP2

Tank code (ADR) : L4BH

Tank special provisions (ADR) : TU15, TE19

Vehicle for tank carriage : AT

Transport category (ADR) : 2

Special provisions for carriage - Packages (ADR) : V12

Special provisions for carriage - Loading, unloading and handling (ADR) : CV13, CV28

Special provisions for carriage - Operation (ADR) : S9

Hazard identification number (Kemler No.) : 60



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Orange plates : 

Tunnel restriction code (ADR) : E  
EAC code : 2Z

### - Transport by sea

Packing instructions (IMDG) : P001, LP01  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T7  
Tank special provisions (IMDG) : TP2  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-A  
Stowage category (IMDG) : A  
Stowage and handling (IMDG) : SW2  
Properties and observations (IMDG) : Colourless, volatile liquid. Boiling point: 61°C. Non-flammable. When involved in a fire, evolves extremely toxic fumes (phosgene). Toxic if swallowed, by skin contact or by inhalation. Anaesthetic.  
MFAG-No : 151

### - Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y680  
PCA limited quantity max net quantity (IATA) : 2L  
PCA packing instructions (IATA) : 680  
PCA max net quantity (IATA) : 60L  
CAO packing instructions (IATA) : 680  
CAO max net quantity (IATA) : 220L  
ERG code (IATA) : 6A

### - Inland waterway transport

Classification code (ADN) : T1  
Special provisions (ADN) : 802  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP, EP, TOX, A  
Ventilation (ADN) : VE02  
Number of blue cones/lights (ADN) : 0

### - Rail transport

Classification code (RID) : T1  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T7  
Portable tank and bulk container special provisions (RID) : TP2  
Tank codes for RID tanks (RID) : L4BH  
Special provisions for RID tanks (RID) : TU15  
Transport category (RID) : 2  
Special provisions for carriage – Packages (RID) : W12

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Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW28, CW31  
Colis express (express parcels) (RID) : CE8  
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  
CHLOROFORM AR is not on the REACH Candidate List  
CHLOROFORM AR is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 3, severe hazard to water (Classification according to AwSV; ID No. 54)  
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 : CHLOROFORM AR is 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  
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

### 15.2. Chemical safety assessment

No additional information available

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### SECTION 16: Other information

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

|                           |   |
|---------------------------|---|
| Acute Tox. 3 (Inhalation) | Acute toxicity (inhal.), Category 3   |
| Acute Tox. 4 (Oral)       | Acute toxicity (oral), Category 4   |
| Carc. 2                   | Carcinogenicity, Category 2   |
| Eye Irrit. 2              | Serious eye damage/eye irritation, Category 2   |
| Repr. 2                   | Reproductive toxicity, Category 2   |
| Skin Irrit. 2             | Skin corrosion/irritation, Category 2   |
| STOT RE 1                 | Specific target organ toxicity — Repeated exposure, Category 1  |
| STOT SE 3                 | Specific target organ toxicity — Single exposure, Category 3, Narcosis                                |
| H302                      | Harmful if swallowed.   |
| H315                      | Causes skin irritation.   |
| H319                      | Causes serious eye irritation.  |
| H331                      | Toxic if inhaled.   |
| H336                      | May cause drowsiness or dizziness.  |
| H351                      | Suspected of causing cancer.  |
| H361d                     | Suspected of damaging the unborn child.   |
| H372                      | Causes damage to organs through prolonged or repeated exposure.                                       |
| R22                       | Harmful if swallowed  |
| R38                       | Irritating to skin  |
| R40                       | Limited evidence of a carcinogenic effect   |
| R48/20/22                 | Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed |
| Xi                        | Irritant  |
| Xn                        | Harmful   |

*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*