

CHLOROFORM FOR PESTICIDE RESIDUE TRACE ANALYSIS MSDS

CAS-No.: 67-66-3 MSDS



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 : 0080A
Formula : CHCl₃
Chemical structure :



Synonyms : Trichloromethane

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

1.2.1. Relevant identified uses

Use of the substance/mixture : 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

Labogens Fine Chem Industries
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,
Ludhiana Pb. (141007)
+91 9316777775, +91 7707855700
sales@labogens.com - www.Labogens.com

1.4. Emergency telephone number

Emergency number : +91 7707855700 (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 H331
(inhalation:gas) Category
3
Skin corrosion/irritation, H315
Category 2
Serious eye damage/eye H319
irritation, Category 2
Carcinogenicity, Category H351

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| | |
|---|-------|
| 2 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 hazard classes and 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) : 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 doctor.
P261 - Avoid breathing vapours, dust, fume, gas.

2.3. Other hazards

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

| | |
|--------------|---|
| Name | : CHLOROFORM For pesticide residue trace analysis |
| 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 general | : Suspected of causing cancer. |
| First-aid measures after inhalation | : Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| First-aid measures after skin contact | : Wash with plenty of water/.... Wash contaminated clothing before reuse. Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. |
| First-aid measures after ingestion | : Rinse mouth. Call a POISON CENTER/doctor if you feel unwell. |

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

| | |
|-------------------------------------|--|
| Symptoms/effects | : Causes damage to organs. May cause cancer. |
| Symptoms/effects after inhalation | : May cause drowsiness or dizziness. |
| Symptoms/effects after skin contact | : Causes skin irritation. |
| Symptoms/effects after eye contact | : Causes serious eye irritation. |
| Symptoms/effects after ingestion | : Harmful if swallowed. |
| Chronic symptoms | : Suspected of damaging the unborn child. |

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 | : Carbon dioxide. Dry powder. Foam. Water spray. |
| 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 enter fire area without proper protective equipment, including respiratory protection. |
|--------------------------------|---|

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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 : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Collect spillage.

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 contact with skin and eyes. Do not breathe vapours.

Hygiene measures : Do not eat, drink or smoke when using this product. 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 a well-ventilated place. Keep container tightly closed. Store in original container.

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 : Liquid

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| | |
|--|---------------------------|
| Molecular mass | : 119.38 g/mol |
| Colour | : Clear colourless. |
| Odour | : sweet pleasant. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : 11.6 |
| Melting point | : -63 °C |
| Freezing point | : No data available |
| Boiling point | : 60.5 - 61.5 K |
| 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 ³ |
| Solubility | : Water: Slightly soluble |
| Log Pow | : 1.97 |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : 0.58 cP at 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

Direct sunlight. Overheating. Air contact.

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10.5. Incompatible materials

Oxidizing agent.

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:gas: Toxic 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 : 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

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| | |
|----------------------|-------------------------------|
| Viscosity, kinematic | 0.38873995 mm ² /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

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| | |
|---------|------|
| Log Pow | 1.97 |
|---------|------|

12.4. Mobility in soil

No additional information available

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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.

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

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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



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

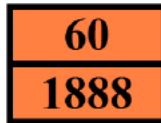
Mixed packing provisions (ADR) : MP19

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| | |
|---|--------------|
| 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 |
| 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 |

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- 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 |
| 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 For pesticide residue trace analysis is not on the REACH Candidate List

CHLOROFORM For pesticide residue trace analysis is not on the REACH Annex XIV List

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 : CHLOROFORM For pesticide residue trace analysis is listed

Denmark

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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

SECTION 16: Other information

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

| | |
|-------------------------------|---|
| Acute Tox. 3 (Inhalation:gas) | Acute toxicity (inhalation:gas) 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