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Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Trichloromethane

1.1. Catalog No.:

684411

1.2. Relevant identified uses of the substance or mixture

Identified uses: Laboratory chemical
R&D

1.3. Uses advised against:

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1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

· 2.1 Classification of the substance or mixture
· Classification according to Regulation (EC) No 1272/2008
GHS06 skull and crossbones
Acute Tox. 3 H331 Toxic if inhaled.
GHS08 health hazard
Carc. 2 H351 Suspected of causing cancer.
Repr. 2 H361d Suspected of damaging the unborn child.
STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.
GHS07
Acute Tox. 4 H302 Harmful if swallowed
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.

2.2. Label elements

2.2.1. Pictogram

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2.2.2.

· Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.
· Signal word Danger
· Hazard statements
H302 Harmful if swallowed.
H331 Toxic if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H361d Suspected of damaging the unborn child.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs through prolonged or repeated exposure.
· Precautionary statements
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.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· 2.3 Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1.1. Formula

CHCl3

3.1.2. Molecular Weight (g/mol)

119.38

3.1.3. CAS-No.

67-66-3

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4. FIRST AID MEASURES

· 4.1 Description of first aid measures
· General information:
Symptoms of poisoning may occur even after several hours; therefore medical observation for at least 48 hours after the accident is recommended.
· After inhalation: In case of unconsciousness place patient in recovery position for transport.
· After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· After eye contact: Rinse opened eye for several minutes under running water.
· After swallowing:
Rinse mouth. Do not induce vomiting.
Call for a doctor immediately.
· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
· 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5. FIRE-FIGHTING MEASURES

· 5.1 Extinguishing media
· Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· 5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
· 5.3 Advice for firefighters
· Protective equipment: Wear self-contained respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

· 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
· 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
· 6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to section 13.
Ensure adequate ventilation.

7. HANDLING AND STORAGE

· 7.1 Precautions for safe handling
Ensure good ventilation/extraction at the workplace.
Store in cool, dry place in tightly closed receptacles.
Open and handle receptacle with care.
· Information about fire - and explosion protection:
The product is not flammable.
Keep respiratory protective device available.
· 7.2 Conditions for safe storage, including any incompatibilities
· Storage:
· Requirements to be met by storerooms and receptacles:
Store in a cool location.

Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
Store only in the original receptacle unless other advice is given on the CoA.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
· Information about storage in one common storage facility: Store away from foodstuffs.
· Further information about storage conditions:
Store in the dark.
Keep container tightly sealed.
· 7.3 Specific end use(s) No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

· 8.1 Control parameters

· 8.2 Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
· Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
· Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374
· Material of gloves Fluorocarbon rubber (Viton)
· Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· Eye protection:
Tightly sealed goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

· 9.1 Information on basic physical and chemical properties
· General Information
· Appearance:
Form: Liquid
Colour: Colourless
· Odour: Sweetish
· Odour threshold: Not determined.
· pH-value: Not determined.
· Change in condition
Melting point/freezing point: -63 °C
Initial boiling point and boiling range: 62 °C
· Flash point: Not applicable.
· Flammability (solid, gas): Not determined.
· Ignition temperature: 982 °C
· Decomposition temperature: Not determined.
· Auto-ignition temperature: Not determined.
· Explosive properties: Not determined.
· Explosion limits:
Lower: Not determined.

Upper: Not determined.
· Vapour pressure at 20 °C: 210 hPa
· Density at 20 °C: 1.47988 g/cm³
· Relative density Not determined.
· Vapour density Not determined.
· Evaporation rate Not determined.
· Solubility in / Miscibility with water at 20 °C: 8 g/l
· Partition coefficient: n-octanol/water: 1.97 Log P
· Viscosity:
Dynamic at 20 °C: 0.56 mPas
Kinematic: Not determined.
· 9.2 Other information No further relevant information available.

10. STABILITY AND REACTIVITY

· 10.1 Reactivity Stable under normal conditions.
· 10.2 Chemical stability Stable under normal conditions.
· Thermal decomposition / conditions to be avoided:
Formation of toxic gases is possible during heating or in case of fire.
· 10.3 Possibility of hazardous reactions
Reacts with oxidising agents.
Reacts with water.
Reacts with powdered metals.
Reacts with strong acids.
· 10.4 Conditions to avoid
Light.
Heat.
Sources of ignition
· 10.5 Incompatible materials:
Metals.
Strong oxidizing agents.
Water
Strong acids.
· 10.6 Hazardous decomposition products:
Formation of toxic gases is possible during heating or in case of fire.

11. TOXICOLOGICAL INFORMATION

· 11.1 Information on toxicological effects
· Acute toxicity
Harmful if swallowed.
Toxic if inhaled.
· LD/LC50 values relevant for classification:
Oral LD50 695 mg/kg (rat)
Dermal LD50 >20000 mg/kg (rabbit)
Inhalative LC50/4 h 47.7 mg/l (rat)
LD 50 (Intraperitoneal) 894 mg/kg (rat)
· Primary irritant effect:
· Skin corrosion/irritation
Causes skin irritation.
· Serious eye damage/irritation
Causes serious eye irritation.
· Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Carc. 2, Repr. 2
· Germ cell mutagenicity Based on available data, the classification criteria are not met.
· 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 Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

· 12.1 Toxicity
· Aquatic toxicity:
LC50/48 66.8 mg/l (daphnia)
LC50/96 h 28 mg/l (fish)
· 12.2 Persistence and degradability No further relevant information available.
· 12.3 Bioaccumulative potential No further relevant information available.
· 12.4 Mobility in soil No further relevant information available.
· Additional ecological information:
· General notes:
Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
· 12.5 Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.
· 12.6 Other adverse effects No further relevant information available.

13. DISPOSAL CONSIDERATIONS

· 13.1 Waste treatment methods
· Recommendation
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· European waste catalogue
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

14. TRANSPORT INFORMATION

· 14.1 UN-Number
· ADR, IMDG, IATA UN1888
· ADR 1888 CHLOROFORM
· IMDG, IATA CHLOROFORM
· 14.3 Transport hazard class(es)
· ADR, IMDG, IATA
· Class 6.1 Toxic substances.
· Label 6.1
· 14.4 Packing group
· ADR, IMDG, IATA III
· 14.5 Environmental hazards:
· Marine pollutant: No
· 14.6 Special precautions for user Warning: Toxic substances.
· Danger code (Kemler): 60
· EMS Number: F-A,S-A

· Segregation groups Liquid halogenated hydrocarbons
· 14.7 Transport in bulk according to Annex II of
Marpol and the IBC Code Not applicable.
· Transport/Additional information:
· ADR
· Limited quantities (LQ) 5L
· Transport category 2
· Tunnel restriction code E
· UN "Model Regulation": UN1888, CHLOROFORM, 6.1, III

15. REGULATORY INFORMATION

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
· Directive 2012/18/EU
· Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 32
· Regulation (EU) No 649/2012 Annex I Part 1
· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any
guarantee of the properties of the product. For lab use only!