

Material Safety Data Sheet According to 1907/2006/EC, Article 31

Revised on: 19.02.2019 Created on: 19.02.2019

1.

Chloroform p.A., stabilized with 50ppm of amylene

Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier Trade name: Chloroform p.A., stabilized with 50ppm of amylene Article number: LC-4919 CAS Number: 67-66-3 EC number: 200-663-8 Index number: 602-006-00-4 Registration number: 01-2119486657-20-XXXX 1.2. Relevant identified uses of the substance or mixture and uses advised against No further relevant information available. Application of the substance / the mixture: Chemical analytics Solvents Laboratory chemical 1.3. Details of the supplier of the safety data sheet Manufacturer/Supplier: Further information obtainable from: Dep. Quality Control neoFroxx GmbH Marie-Curie-Str. 3 D-64683 Einhausen info@neofroxx.com 1.4. Emergency telephone number

+49 (6251) 989 24 - 0 (during normal business hours)

2. Hazards identification

2.1. Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008:

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 3 H331 Toxic if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms:



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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.

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.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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. Chemical characterisation: Substances
CAS No. Description:
67-66-3 trichloromethane
Identification number(s):
EC number: 200-663-8
Index number: 602-006-00-4

4. First aid measures

4.1. Description of first aid measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Involve doctor immediately.

After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

After skin contact:

Call a doctor immediately.

Immediately wash with water and soap and rinse thoroughly.

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Created on: 19.02.2019 Immediately remove any clothing soiled by the product. After eye contact: Rinse opened eye for several minutes under running water. Call a doctor immediately. After swallowing: Do not induce vomiting; call for medical help immediately. Risk of aspiration! Subsequently administer: activated charcoal (20 - 40 g in 10 % slurry)

- 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. Firefighting measures

5.1. Extinguishing media **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

5.2. Special hazards arising from the substance or mixture Hydrogen chloride (HCI)
Phosgene gas carbon oxides (CO, CO2).
Non-combustible.

5.3. Advice for firefighters **Protective equipment:**

Mouth respiratory protective device.

Wear self-contained respiratory protective device.

Additional information:

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Contain escaping vapours with water.

6. Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures Avoid substance contact.
- 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 contaminated material as waste according to item 13.

Ensure adequate ventilation.

Clean up affected area.

6.4. Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7. Handling and storage 7.1. Precautions for safe handling Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care. Prevent formation of aerosols. Information about fire - and explosion protection: Keep respiratory protective device available. The product is not flammable. 7.2. Conditions for safe storage, including any incompatibilities Storage: Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Keep container tightly sealed.

Open receptacle only under localised extractor facilities.

Store receptacle in a well ventilated area.

Store under lock and key and with access restricted to technical experts or their assistants only.

Recommended storage temperature: Room Temperature

Storage class: 6.1 D

7.3. Specific end use(s)

No further relevant information available.

8. Exposure controls / personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:

67-66-3 trichloromethane

IOELV Long-term value: 10 mg/m³, 2 ppm Skin

DNELs:

Dermal Long-term - systemic effects, worker 0.94 mg/kg

Inhalative Acute - systemic effects, worker 333 mg/m3

Long-term - systemic effects, worker 2.5 mg/m3

Long-term - local effects, worker 2.5 mg/m3

Long-term - systemic effects, general population 0.18 mg/m3

PNECs:

Aquatic compartment - freshwater 0.146 mg/L

Aquatic compartment - marine water 0.015 mg/L

Aquatic compartment - water, intermittent releases 0.133 mg/L

Aquatic compartment - sediment in freshwater 0.45 mg/kg

Aquatic compartment - sediment in marine water 0.09 mg/kg

Terrestrial compartment - soil 0.56 mg/kg

Sewage treatment plant 0.048 mg/L

Additional information: The lists valid during the making were used as basis.

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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.

Filter AX

Protection of hands:

Protective gloves

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

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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.

For the permanent contact gloves made of the following materials are suitable:

Recommended thickness of the material: ≥ 0.7 mm

Fluorocarbon rubber (Viton)

Value for the permeation: Level ≥ 480 min

As protection from splashes gloves made of the following materials are suitable:

Recommended thickness of the material: ≥ 0.7 mm

Butyl rubber, BR

Value for the permeation: Level \geq 10 min

Eye protection:

Tightly sealed goggles

Body protection:

Use protective suit.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Information:

Appearance: Form: Fluid

Colour: Colourless

Odour: Sweetish

Odour threshold: Not determined.

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pH-value: Not determined.

Change in condition:

Melting point/freezing point: -63 °C Initial boiling point and boiling range: 61 °C

Flash point: Not applicable.

Flammability (solid, gas): Not applicable.

Decomposition temperature: Not determined.

Auto-ignition temperature: Not determined.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined.

Upper: Not determined.

Vapour pressure at 20 °C: 211 hPa

Density at 20 °C: 1.48 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: Not determined.

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

No dangerous reactions known.

10.2. Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3. Possibility of hazardous reactions No dangerous reactions known.

10.4. Conditions to avoid No further relevant information available.

10.5. Incompatible materials: **Risk of explosion with:**

Alkali metals, Alkaline earth metals, peroxi compounds, Fluorine. alcoholates, strong alkalis, Sodium hydroxide, Methanol, alkali hydroxides, Alcohols, organic nitro compounds, alkali amides, Oxygen, bases, nitrogen oxides, Amines, Ammonia, Iron, in powder form, Aluminium, magnesium, metal alloys, sensitive to stock

10.6. Hazardous decomposition products In the event of fire: See chapter 5 Additional information: heat-sensitive, light sensitive neoFroxx GmbH Marie-Curie-Str. 3 Phone: +49 (6251) 989 24 - 0 64683 Einhausen, Germany Fax: +49 (6251) 989 24 - 10



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11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity:

Harmful if swallowed.

Toxic if inhaled.

LD/LC50 values relevant for classification:

Components	Туре	Value	Species
Oral	LD50	695 mg/kg	(rat)
Dermal	LD50	3,980 mg/kg	(rabbit)

Primary irritant effect:

Skin corrosion/irritation:

Causes skin irritation.

Serious eye damage/irritation:

Causes serious eye irritation.

After inhalation: Irritant to skin and mucous membranes.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):

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: Based on available data, the classification criteria are not met.

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: Harmful effect on aquatic organisms.

Type of test	Effective concentration Method Assessment
EC50/48 h	79 mg/l (daphnia magna)
LC50/96 h	18 mg/l (fish)

12.2. Persistence and degradability Not easily biodegradable

12.3. Bioaccumulative potential

Due to the distribution coefficient n-octanol/water a worth-mentioning accumulation in organisms is not expected.

12.4. Mobility in soil

No further relevant information available.

Additional ecological information:

General notes:

Do not allow product to reach ground water, water course or sewage system, even in small quantities. Water hazard class 3 (German Regulation) (Assessment by list): extremely hazardous for water Danger to drinking water if even extremely small quantities leak into the ground.



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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:

Chemicals must be disposed of in compliance with the respective national regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

14. Transport information

14.1. UN-Number ADR, IMDG, IATA: UN1888

14.2. UN proper shipping name ADR, IMDG, IATA: CHLOROFORM

14.3. Transport hazard class(es)

ADR

Class 6.1 (T1) Toxic substances.

Label 6.1

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
Stowage Category A
Stowage Code SW2 Clear of living quarters.

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

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Created on: 19.02.2019 Excepted quantities (EQ) Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml Transport category 2 Tunnel restriction code E **IMDG** Limited quantities (LQ) 5L Excepted quantities (EQ) Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml UN "Model Regulation": UN 1888 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

Named dangerous substances - ANNEX I Substance is not listed.

Seveso category H2 ACUTE TOXIC

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

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - Category 4

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Acute Tox. 3: Acute toxicity - Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Carc. 2: Carcinogenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) - Category 1