

# Material safety data sheet

according to 1907/2006/EG, Article 31



# GENAXXON

b i o s c i e n c e

Product number : M3338

Product name : 4-Chloro-1-naphthol

## 1. Identification of the substance/preparation and of the company

### Product identifier

**Product Name:** 4-Chloro-1-naphthol

**Catalogue Number:** M3338

**CAS Number:** 604-44-4

**EC Number:** 210-068-5

**REACH-Number:** A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration, the registration is envisaged for a later registration deadline or it is a mixture.

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

No further relevant information available.

### Application of the substance/the preparation

Laboratory chemical only

Not for drug, household or other uses.

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

#### Manufacturer /Supplier:

Genaxxon bioscience GmbH, Söflinger Str. 70, 89077 Ulm/Germany.

Tel.: +49 (0)731 3608 123, info@genaxxon.com

**Further information available from:** General Management

#### Emergency telephone number:

Poison Information Centre Mainz, Germany, Tel.: +49 (0)6131 19240 / 24 h

**NOTE:** If this product is a kit or supplied with more than one material, please refer to the MSDS for each component for hazard information.

### Product Use:

This products are for laboratory research use only and are not intended for human or animal diagnostics, therapeutics or other clinical uses.

## 2. Hazardous identification

### Classification of the substance/preparation/mixture

#### Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

### Label elements

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

The product is classified and labeled according to the CLP regulation.

#### Hazard pictograms



GHS07

Signal word: **Danger**

#### Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

#### Precautionary statements

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.

#### Other hazards

#### Result of PBT and vPvB assessment

**PBT:** not applicable

**vPvB:** not applicable

## 3. Composition/information on ingredients

### Chemical characterisation: Substances

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**CAS No.:** Description  
604-44-4 4-Chloro-1-naphthol  
Identification number(s)  
EC number: 210-068-5

## 4. First-aid measures

### Description of first aid measures

#### General information:

#### After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
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.  
Remove any clothing soiled by the product.

#### After eye contact:

Rinse opened eye for several minutes under running water.  
Seek medical treatment.

#### After swallowing:

Call a doctor immediately.  
Rinse out mouth.

#### Information for doctor:

**Most important symptoms and effects, both acute and delayed:** No further relevant information available.

**Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

## 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing agents:

Water Spray. Carbon Dioxide. Dry chemical powder, or appropriate foam. Fight larger fires with water spray or alcohol resistant foam.

#### Special hazards arising from the substance or mixture:

Formation of toxic gases is possible during heating or in case of fire.

In case of a fire, the following can be released:

Carbon oxides (CO, CO<sub>2</sub>)

Nitrogen oxides (NO<sub>x</sub>),

Hydrochloric acid (HCl)

#### Advice for fire fighters:

#### 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

### Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.

Do not inhale dust.

Avoid substance contact.

Ensure adequate ventilation.

Use respiratory protective device against the effects of fumes/dust/aerosol.

**Environmental precautions:** Do not allow product to enter sewage system, surface or ground water.

Discharge into the environment must be avoided.

#### Methods and materials for containment and cleaning up:

Pick up mechanically.

Avoid generation of dust.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Clean up affected area.

#### 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.

## 7. Handling and storage

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## Precautions for safe handling:

Keep away from heat and direct sunlight.  
Provide suction extractors if dust is formed.  
Prevent formation of dust.  
Any unavoidable deposit of dust must be regularly removed.

**Information about fire – and explosion protection:** No special measures required.

## Conditions for safe storage, including any incompatibilities

### Storage:

**Requirements to be met by storerooms and receptacles:** Keep receptacles tightly sealed.

Store only in the original receptacle.

**Information about storage in one common storage facility:** No special measures required.

### Further information about storage conditions:

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

Keep container sealed.

**Recommended storage temperature:** -20°C

**Storage class:** (TRGS 510): 13: Non Combustible Solids

**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.

### Control parameters

**Ingredients with limit values that require monitoring at the workplace:** Not required.

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

### Exposure controls:

#### Personal protective equipment:

#### General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with eyes and skin.

Store protective clothing separately.

Vacuum clean contaminated clothing. Do not blow or brush off contamination.

Immediately remove all soiled and contaminated clothing.

#### Respiratory protection:

Required when dusts are generated.

Filter: ABEK (EN 149).

#### Protection of hands:



Protective gloves (EN 374)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### 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:

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.11$  mm

Value for permeation: Level:  $>480$  min.

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

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.11$  mm

Value for the permeation: Level  $\geq 480$  min.

#### Eye/face protection: Safety glasses



Safety glasses (EN 166)

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## 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

### Information on basic physical and chemical properties

#### General Information

#### Appearance

**Form:** Crystalline  
**Colour:** White  
**Odour:** No data available

**pH value at 20°C:** No data available

#### Change in conditions

**Melting point/Melting range:** 118°C – 121°C (dec.)  
**Boiling point/Boiling range:** Not determined

**Flash point:** Not applicable

**Flammability (solid, gaseous):** Product is not flammable

**Decomposition temperature:** Not determined

**Self-ignition:** Product is not self-igniting

**Danger of explosion:** Product does not present an explosion hazard

#### Explosion limits:

**Lower:** Not determined  
**Upper:** Not determined

**Vapour pressure:** Not applicable

**Density (20°C):** Not determined

**Bulk density at 20°C:** Not determined

#### Solubility in / Miscibility with

**(water, 20°C):** No data available  
**Organic solvents:** No data available

**Partition coefficient (n-octanol/water):** Not determined

#### Viscosity:

**Dynamic:** Not applicable  
**Kinematic:** Not applicable

#### Solvent content:

**Organic solvents:** 0.0%  
**VOC (EC)** 0.00%

**Other information:** No further relevant information available.

## 10. Stability and reactivity

**Reactivity:** No dangerous reactions known.

#### Chemical stability

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions:** No dangerous reactions known.

**Conditions to avoid:** Heat.

**Incompatible materials:** strong acids, strong oxidants.

**Hazardous decomposition products:** In the event of fire: See chapter 5 of this data sheet.

## 11. Toxicological information

### Information on toxicological effects

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

#### Primary irritant effect

**Skin corrosion/irritation:** Based on available data, the classification criteria are not met.

**Serious eye damage/irritation:** Based on available data, the classification criteria are not met.

**After inhalation:** No irritant effect.

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## Respiratory or skin sensitization:

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

## CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

**Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

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

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

**STOT-single exposure:** Based on available data, the classification criteria are not met.

**STOT-repeated exposure:** Based on available data, the classification criteria are not met.

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

**To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.**

The product should be treated with usual precautions while handling chemicals.

## 12. Ecological Information

### Toxicity

**Aquatic toxicity:** No further relevant information available

**Persistence and degradability:** No further relevant information available

### Behaviour in environmental systems

**Bioaccumulative potential:** No further relevant information available.

**Mobility in soil:** No further relevant information available

### Additional ecological information

#### General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow product to reach ground water, water course or sewage system.

### Results of PBT and vPvB assessment

**PBT:** Not applicable

**vPvB:** Not applicable

**Other adverse effects:** No further relevant information available.

## 13. Disposal considerations

### 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. Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

#### 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.

**Recommended cleaning agents:** Water, if necessary together with cleansing agents.

## 14. Transport information

### UN-Number

ADR, ADN, IMDG, IATA Void

### UN proper shipping name

ADR, ADN, IMDG, IATA Void

### Transport hazard class(es)

ADR, ADN, IMDG, IATA Class Void

### Packaging group

ADR, IMDG, IATA Void

### Environmental hazards:

**Marine pollutant** No

**Special precautions for user** Not applicable.

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

**Transport/Additional information:** Not dangerous according to the above specifications.

**UN "Model Regulation":** Void

## 15. Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

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## Directive 2012/18/EU

**Named dangerous substances - ANNEX I** Substance is not listed.

**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. Genaxxon bioscience GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product.

## Disclaimer

This product is for R&D use only. Not for drug, household or other uses.

## Abbreviations and Acronyms:

ACAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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

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

EINECS: European Inventory of Existing Commercial Chemical Substances

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

GHS: Globally Harmonized System of Classification and labeling of Chemicals

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

IMDG: International Maritime code for Dangerous Goods

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

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