

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

Product identifier
Trade name **1,2,3,4-Tetrahydronaphthalene**
Stock number: A14962
CAS Number: 119-64-2
EINECS Number: 204-340-2
Index number: 601-045-00-4
Relevant identified uses of the substance or mixture and uses advised against
Sector of Use SU24 Scientific research and development
Details of the supplier of the safety data sheet
Manufacturer/Supplier: Alfa Aesar GmbH & Co.KG
A Johnson Matthey Company
Benzstrasse 3
D-76185 Karlsruhe / Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 84007 300
Email: tech@alfa.com
www.alfa.com
Informing department: Product safety department.
Emergency telephone number: Product Safety Department +049 (0) 7275 988687-0 (business hours)
Carechem 24: +44 (0) 1235 239 670 (Multi-language 24 hour emergency)
Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon: +49(0)6131/19240

2 Hazards identification

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



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant

R36/38: Irritating to eyes and skin.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R19: May form explosive peroxides.

Information concerning particular hazards
for human and environment:

Not applicable

Label elements

Labelling according to Regulation (EC) No
1272/2008

Hazard pictograms

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



GHS07 GHS09

Signal word**Hazard statements****Precautionary statements**

Warning

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

EUH019 May form explosive peroxides.

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.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P321 Specific treatment (see on this label).

P362 Take off contaminated clothing and wash before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards**Results of PBT and vPvB assessment****PBT:****vPvB:**

Not applicable.

Not applicable.

3 Composition/information on ingredients**Chemical characterization: Substances****(CAS#) Designation:****Identification number(s):****EINECS Number:****Index number:**

119-64-2 1,2,3,4-Tetrahydronaphthalene

204-340-2

601-045-00-4

4 First aid measures**Description of first aid measures****After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

After swallowing

Rinse opened eye for several minutes under running water. Then consult doctor.

Information for doctor

Seek immediate medical advice.

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.

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.05.2011

Revision: 17.05.2011

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5 Firefighting measures

Extinguishing media
Suitable extinguishing agents
Special hazards arising from the substance or mixture

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Can be released in case of fire:
Carbon monoxide and carbon dioxide

Advice for firefighters

Wear self-contained breathing apparatus.

Protective equipment:

Wear full protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Do not allow material to be released to the environment without proper governmental permits.

Environmental precautions:

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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 information on disposal.

7 Handling and storage

Handling

Precautions for safe handling

Handle under dry protective gas.

Keep containers tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation/exhaustion at the workplace.

Open and handle container with care.

Information about protection against explosions and fires:

Do not distill to dryness.

Explosive peroxides may form, handle container cautiously.

Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers:

Store in cool location.

Information about storage in one common storage facility:

Store away from air.

Store away from oxidizing agents.

Further information about storage conditions:

Store under dry inert gas.

Store in cool, dry conditions in well sealed containers.

Avoid contact with air / oxygen (formation of peroxide).

Check container pressure periodically to prevent explosive peroxides.

This product is air sensitive.

No further relevant information available.

Specific end use(s)

8 Exposure controls/personal protection

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with critical values that require monitoring at the workplace:

Not required.

Additional information:

No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Use breathing protection with high concentrations.

Check protective gloves prior to each use for their proper condition.

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.

Impervious gloves

Not determined

Safety glasses

Face protection

Protective work clothing.

Breathing equipment:

Protection of hands:

Material of gloves

Penetration time of glove material

Eye protection:

Body protection:

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:

Liquid

Colour:

Colourless

Smell:

Not determined

Odour threshold:

Not determined.

pH-value:

Not determined.

Change in condition

Melting point/Melting range:

-36°C

Boiling point/Boiling range:

206-207°C

Sublimation temperature / start:

Not determined

Flash point:

77°C

Inflammability (solid, gaseous)

Not applicable.

Ignition temperature:

425°C

Decomposition temperature:

Not determined

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| | |
|---|---|
| Self-inflammability: | Not determined. |
| Danger of explosion: | May form explosive peroxides. Do not distill to dryness. |
| Critical values for explosion: | |
| Lower: | 0.8 Vol % |
| Upper: | 5 Vol % |
| Steam pressure at 20°C: | 0.27 hPa |
| Density at 20°C | 0.973 g/cm ³ |
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Evaporation rate | Not determined. |
| Segregation coefficient (n-octanol/water): | Not determined. |
| Viscosity: | |
| dynamic: | Not determined. |
| kinematic: | Not determined. |
| Other information | No further relevant information available. |

10 Stability and reactivity

| | |
|--|--|
| Reactivity | |
| Chemical stability | |
| Thermal decomposition / conditions to be avoided: | No decomposition if used and stored according to specifications. |
| Possibility of hazardous reactions | Forms peroxides |
| Incompatible materials: | Air |
| | Oxidizing agents |
| Hazardous decomposition products: | Carbon monoxide and carbon dioxide |

11 Toxicological information

| | |
|---|--|
| Information on toxicological effects | |
| Acute toxicity: | |
| LD/LC50 values that are relevant for classification: | |
| Oral LD50 | 1576 mg/kg (rat) |
| Primary irritant effect: | |
| on the skin: | Irritant for skin and mucous membranes. |
| on the eye: | Irritant effect. |
| Sensitization: | No sensitizing effect known. |
| Additional toxicological information: | To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute and/or other multiple dose toxicity data for components in this product. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. |

12 Ecological information

| | |
|--|--|
| Toxicity | |
| Acquatic 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. |
| Ecotoxicological effects: | |
| Remark: | Toxic for fish |
| Additional ecological information: | |
| General notes: | Do not allow product to reach ground water, water bodies or sewage system. Water hazard class 2 (Assessment by list): hazardous for water. Danger to drinking water if even small quantities leak into soil. Also poisonous for fish and plankton in water bodies. Do not allow material to be released to the environment without proper governmental permits. Toxic for aquatic organisms |
| 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 | Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. |
| Uncleaned packagings: | |
| Recommendation: | Disposal must be made according to official regulations. |

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)



| | |
|---------------------------------|--|
| ADR/RID-GGVS/E Class: | 9 (M6) Miscellaneous dangerous substances and articles. |
| Kemler Number: | 90 |
| UN-Number: | 3082 |
| Packaging group: | III |
| Label | 9 |
| Special marking: | Symbol (fish and tree) |
| UN proper shipping name: | 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,2,3,4-Tetrahydronaphthalene) |
| Limited quantities (LQ) | LQ7 |
| Transport category | 3 |

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Tunnel restriction code

E

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class:

9

UN Number:

3082

Label

9

Packaging group:

III

Marine pollutant:

No

Correct technical name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,2,3,4-Tetrahydronaphthalene)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class:

9

UN/ID Number:

3082

Label

9

Special marking:

Symbol (fish and tree)

Packaging group:

III

Correct technical name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,2,3,4-Tetrahydronaphthalene)

UN "Model Regulation":

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III

Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

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

Not applicable.

15 Regulatory information

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

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

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



GHS07 GHS09

Signal word

Warning

Hazard statements

H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H411 Toxic to aquatic life with long lasting effects.
 EUH019 May form explosive peroxides.

Precautionary statements

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.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P321 Specific treatment (see on this label).
 P362 Take off contaminated clothing and wash before reuse.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

Information about limitation of use:

Employment restrictions concerning young persons must be observed.
 For use only by technically qualified individuals.

Technical instructions (air):

| Class | Share in % |
|-------|------------|
| NK | 100.0 |

Water hazard class:

Water hazard class 2 (Assessment by list): hazardous for water.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.

Contact:

Zachariah C. Holt
 Global EHS Manager

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized 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)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent