E-mail: gcat@matthey.com

www.alfa-chemcat.com

Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 25.08.2010 Revision: 25.08.2010

1 Identification of substance

Product details

(S)-(+)-1-(1-Naphthyl)ethyl isothiocyanate Trade name

Stock number:

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG Benzstrasse 3 D-76185 Karlsruhe / Germany

Informing department: Emergency information:

Product safety department. Giftnotruf Universität Mainz / Poison Information Center Mainz www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240

2 Hazards identification

Hazard designation:

C Corrosive

Information pertaining to particular dangers

for man and environment

GHS label elements

Prevention:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R 34 Causes burns.

Danger

H314 - Causes severe skin burns and eye damage.

Warning

H302 - Harmful if swallowed. H312 - Harmful in contact with skin. H332 - Harmful if inhaled.

Response:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

P305+P351+P358 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.

Storage: Disposal:

3 Composition/information on ingredients

Chemical characterization: Designation: (CAS#) (S)-(+)-1-(1-Naphthyl)ethyl isothiocyanate (CAS# 131074-55-0): 100%

4 First aid measures

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. Seek immediate medical advice. After inhalation

After skin contact

Instantly wash with water and soap and rinse thoroughly.

Seek immediate medical advice.
Rinse opened eye for several minutes under running water. Then consult doctor. After eye contact After swallowing

Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents For safety reasons unsuitable extinguishing

Special hazards caused by the material, its products of combustion or flue gases:

CO2, sand, extinguishing powder. Do not use water.

Can be released in case of fire:

Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Hydrogen cyanide (HCN)
Sulphur oxides (SOx)
Wear self-contained breathing apparatus.

Protective equipment: Wear full protective suit.

6 Accidental release measures Person-related safety precautions:

Measures for environmental protection:

Measures for cleaning/collecting:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Do not allow material to be released to the environment without proper governmental permits. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to item 13.

Additional information:

Ensure adequate ventilation.

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 Information for safe handling:

Handle under dry protective gas. Keep containers tightly sealed. Ensure good ventilation/exhaustion at the workplace.

Information about protection against

explosions and fires:

Keep ignition sources away - Do not smoke.

Storage Requirements to be met by storerooms and

containers Information about storage in one common

storage facility:

Refrigerate

Store away from oxidizing agents. Protect from heat. Store away from water.

Further information about storage Store under dry inert gas.

This product is moisture sensitive.
Keep container tightly sealed.
Protect from humidity and keep away from water.

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Store in a locked cabinet or with access restricted to technical experts or their assistants. Refrigerate

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8 Exposure controls and 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.

Components with critical values that require

monitoring at the workplace: Additional information:

Not required. No data

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.

Breathing equipment: Protection of hands:

Material of gloves

Impervious gloves Penetration time of glove material Not determined Safety glasses
Face protection
Protective work clothing. Eye protection: **Body protection:**

9 Physical and chemical properties:

General Information Liquid Yellow Form: Colour: Smell: Irritant

Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:

Not determined Not determined Flash point: Not determined Ignition temperature: Not determined **Decomposition temperature:** Not determined

Danger of explosion: Critical values for explosion:

Lower: Upper: Not determined Not determined Steam pressure: Not determined

Density at 20°C Solubility in / Miscibility with

Water

1.154 g/cm3 Hydrolyzes

Not determined

Product is not explosive

10 Stability and reactivity

Thermal decomposition / conditions to be

avoided: Materials to be avoided:

No decomposition if used and stored according to specifications.

Water/moisture Alcohols

Amines Oxidizing agents

Dangerous reactions: Dangerous products of decomposition: Heat
No dangerous reactions known Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Sulphur oxides (SOx)

Hydrogen cyanide (prussic acid)

11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin: on the eye: Sensitization:

Corrosive effect on skin and mucous membranes.

Additional toxicological information:

Strong corrosive effect.

No sensitizing effect known.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Danger by skin resorption.

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:

Additional ecological information: General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Product:

Recommendation Consult state, local or national regulations for proper disposal.

Hand over to disposers of hazardous waste.

Must be specially treated under adherence to official regulations.

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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: 8 (CT1) Corrosive substances. 86 Kemler Number:

2922 III **UN-Number:** Packaging group: Label

8+6.1 2922 CORROSIVE LIQUID, TOXIC, N.O.S. ((S)-(+)-1-(1-Naphthyl)ethyl isothiocyanate)

Designation of goods: Limited quantities (LQ) Transport category 3 E Tunnel restriction code

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 8 2922 UN Number: 8+6.1 III Label Packaging group: EMS Number: A,S-B

Marine pollutant: Correct technical name: CORROSIVE LIQUID, TOXIC, N.O.S. ((S)-(+)-1-(1-Naphthyl)ethyl isothiocyanate)

Air transport ICAO-TI and IATA-DGR:



8 2922 8+6.1 ICAO/IATA Class: UN/ID Number: l abel

Packaging group: Correct technical name: CORROSIVE LIQUID, TOXIC, N.O.S. ((S)-(+)-1-(1-Naphthyl)ethyl isothiocyanate)

UN "Model Regulation": UN2922, CORROSIVE LIQUID, TOXIC, N.O.S., 8 (6.1), III

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of

product:



C Corrosive

Risk phrases: 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

Causes búrns.

Safety phrases:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

National regulations

Information about limitation of use: For use only by technically qualified individuals.

Employment restrictions concerning young persons must be observed. Water hazard class 1 (Self-assessment): slightly hazardous for water.

Water hazard class: 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.

Abbreviations and acronyms:

Health, Safety and Environmental Department.

Zachariah Holt
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 RiD: Règlement international Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO: T1: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)