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

Printing date 22.08.2010 Revision: 22.08.2010

1 Identification of substance

Product details

Trade name 3-Chloro-2-methylphenyl isocyanate

Stock number:

Manufacturer/Supplier:

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

Informing department:

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

2 Hazards identification

Hazard designation:

GHS label elements

T Toxic

Information pertaining to particular dangers

for man and environment

R 23 Toxic by inhalation.
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 42 May cause sensitisation by inhalation.

Danger H330 - Fatal if inhaled.

Danger

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Warning
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.

Prevention:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P284 Wear respiratory 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.
P320 Specific treatment is urgent (see on this label). Response:

P320 Sp P405 Store locked up.

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

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#) 3-Chloro-2-methylphenyl isocyanate (CAS# 40397-90-8): 100%

4 First aid measures

General information

Instantly remove any clothing soiled by the product.
Remove breathing apparatus only after soiled clothing has been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.

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

persist.
Seek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.
Seek immediate medical advice. After skin contact

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

5 Fire fighting measures

Protective equipment:

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.

Water.

Can be released in case of fire: Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Hydrogen cyanide (HCN) Hydrogen chloride (HCl) Wear self-contained breathing apparatus. Wear full protective suit

Wear full protective suit.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

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. Measures for environmental protection: Measures for cleaning/collecting:

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. Open and handle container with care. Prevent formation of aerosols.

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.

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Further information about storage

conditions:

Store away from water.

Store under dry inert gas. This product is moisture sensitive.

Keep container tightly sealed.
Protect from humidity and keep away from water.
Store in a locked cabinet or with access restricted to technical experts or their assistants.

Refrigerate

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. Store protective clothing separately. 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

Breathing equipment: Protection of hands:

Material of gloves

Impervious gloves

Penetration time of glove material Eye protection:

Body protection:

Not determined Safety glasses
Face protection
Protective work clothing.

9 Physical and chemical properties:

General Information

Form: Liquid Colourless Pungent Colour: Smell:

Change in condition

Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:

Not determined 94-95°C (9mm Hg) Not determined

Flash point: Ignition temperature: Decomposition temperature:

Not determined Not determined

Product is not explosive.

> 110°C

Danger of explosion:

Critical values for explosion:

Not determined Upper: Not determined Steam pressure: Not determined Density at 20°C 1.247 g/cm³

Solubility in / Miscibility with Water:

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

Materials to be avoided:

No decomposition if used and stored according to specifications.

Heat Water/moisture Alcohols

Hydrolyzes

Dangerous reactions:

Dangerous products of decomposition:

Amines Oxidizing agents No dangerous reactions known

Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Hydrogen cyanide (prussic acid) Hydrogen chloride (HCl)

11 Toxicological information

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

Irritant for skin and mucous membranes. Irritant effect.

Additional toxicological information:

Sensitization possible by inhalation.
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Sensitisation May cause sensitisation by inhalation.

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.

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13 Disposal considerations

Product:

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: Kemler Number: 6.1 (T1) Toxic substances.

60 2206 II UN-Number: Packaging group: Label

6.1 2206 ISOCYANATES, TOXIC, N.O.S. (3-Chloro-2-methylphenyl isocyanate) LQ17

Designation of goods: Limited quantities (LQ) Transport category 2 D/E Tunnel restriction code

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 6.1 2206 UN Number: Label Packaging group: EMS Number:

Ë-A,S-A Marine pollutant:

ISOCYANATES, TOXIC, N.O.S. (3-Chloro-2-methylphenyl isocyanate) Correct technical name:

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: UN/ID Number: 6.1 2206 Label Packaging group: Correct technical name: 6.1

iSOCYANATES, TOXIC, N.O.S. (3-Chloro-2-methylphenyl isocyanate)

UN "Model Regulation": UN2206, ISOCYANATES, TOXIC, N.O.S., 6.1, II

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of

product:

T Toxic

Risk phrases:

Toxic by inhalation.
 36/37/38 Irritating to eyes, respiratory system and skin.
 May cause sensitisation by inhalation.

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37 Wear suitable protective clothing and gloves.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where Safety phrases:

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:

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: 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: Réglement 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 Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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

ICAO: International Civil Avaition Organization

ICAO-TI: 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)