

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 23.07.2010

Revision: 23.07.2010

1 Identification of substance**Product details****Trade name****4-(Trifluoromethoxy)phenyl isocyanate****Stock number:**

B20033, L16066

Manufacturer/Supplier:Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com**Informing department:**

Product safety department.

Emergency information:Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon: +49(0)6131/19240**2 Hazards identification****Hazard designation:**

Xn Harmful

Information pertaining to particular dangers for man and environmentR 20/22 Harmful by inhalation and if swallowed.
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 42 May cause sensitisation by inhalation.**GHS label elements****Danger**

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

**Warning**H302 - Harmful if swallowed.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.**Warning**H315 - Causes skin irritation.
H319 - Causes serious eye irritation.**Prevention:****Response:**P285 In case of inadequate ventilation wear respiratory protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).**Storage:****Disposal:**P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.**3 Composition/information on ingredients****Chemical characterization:****Designation: (CAS#)**4-(Trifluoromethoxy)phenyl isocyanate (CAS# 35037-73-1);
100%**Identification number(s):****EINECS Number:**

252-328-0

4 First aid measures**After inhalation**

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

After skin contactSeek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.**After eye contact**Seek immediate medical advice.
Rinse opened eye for several minutes under running water. Then consult doctor.**After swallowing**

Seek immediate medical advice.

5 Fire fighting measures**Suitable extinguishing agents**

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

For safety reasons unsuitable extinguishing agents

Water.

Special hazards caused by the material, its products of combustion or flue gases:Reacts with water
Can be released in case of fire:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Hydrogen fluoride (HF)
Hydrogen cyanide (HCN)
Wear self-contained breathing apparatus.
Wear full protective suit.**Protective equipment:****6 Accidental release measures****Person-related safety precautions:**Put on breathing apparatus.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation**Measures for environmental protection:****Measures for cleaning/collecting:**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.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.**Additional information:****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.
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:

Refrigerate

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Information about storage in one common storage facility:

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

Further information about storage conditions:

Store under dry inert gas.
This product is moisture sensitive.
Keep container tightly sealed.
Protect from humidity and keep away from water.
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.
Avoid contact with the eyes and skin.

Breathing equipment:

Use breathing protection with high concentrations.

Eye protection:

Safety glasses

Body protection:

Protective work clothing.

9 Physical and chemical properties:

General Information

Form: Liquid
Colour: Colourless
Smell: Not determined

Change in condition

Melting point/Melting range: -29°C
Boiling point/Boiling range: 78°C (22mm Hg)
Sublimation temperature / start: Not determined

Flash point: 70°C

Ignition temperature: Not determined

Decomposition temperature: Not determined

Danger of explosion: Product is not explosive.

Critical values for explosion:

Lower: Not determined
Upper: Not determined

Steam pressure: Not determined

Density at 20°C 1.346 g/cm³

Solubility in / Miscibility with Water:

Reacts

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Materials to be avoided:

Water/moisture
Oxidizing agents
Alcohols
Amines
Heat

Dangerous reactions:

Isocyanates may react exothermically with NH, OH or SH groups

Dangerous products of decomposition:

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

11 Toxicological information

Acute toxicity:

Primary irritant effect:

Irritant for skin and mucous membranes.

on the skin:

Irritant effect.

on the eye:

Sensitization possible by inhalation.

Sensitization:

Additional toxicological information:

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.

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: 6.1 (T1) Toxic substances.
 Kemler Number: 60
 UN-Number: 2206
 Packaging group: III
 Label: 6.1
 Designation of goods: 2206 ISOCYANATES, TOXIC, N.O.S. (4-(Trifluoromethoxy)phenyl isocyanate)
 Limited quantities (LQ): LQ7
 Transport category: 2
 Tunnel restriction code: E

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 6.1
 UN Number: 2206
 Label: 6.1
 Packaging group: III
 Marine pollutant: No
 Correct technical name: ISOCYANATES, TOXIC, N.O.S. (4-(Trifluoromethoxy)phenyl isocyanate)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 6.1
 UN/ID Number: 2206
 Label: 6.1
 Packaging group: III
 Correct technical name: ISOCYANATES, TOXIC, N.O.S. (4-(Trifluoromethoxy)phenyl isocyanate)

UN "Model Regulation":

UN2206, ISOCYANATES, TOXIC, N.O.S., 6.1, III

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



Xn Harmful

Risk phrases:

20/22 Harmful by inhalation and if swallowed.
 36/37/38 Irritating to eyes, respiratory system and skin.
 42 May cause sensitisation by inhalation.

Safety phrases:

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 36/37 Wear suitable protective clothing and gloves.
 45 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:

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

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

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 Holt

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)