

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 09.08.2010

Revision: 09.08.2010

1 Identification of substance**Product details****Trade name****5-Chloro-2-fluorobenzotrifluoride****Stock number:**

H26208

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:**

Xi Irritant

Information pertaining to particular dangers for man and environmentR 10 Flammable.
R 36/37/38 Irritating to eyes, respiratory system and skin.**GHS label elements****Warning**

H226 - Flammable liquid and vapour.

**Warning**H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
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.**Prevention:****Response:****3 Composition/information on ingredients****Chemical characterization:****Designation: (CAS#)**

5-Chloro-2-fluorobenzotrifluoride (CAS# 89634-74-2)

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:Can be released in case of fire:
Carbon monoxide and carbon dioxide
Hydrogen fluoride (HF)
Hydrogen chloride (HCl)
Wear self-contained breathing apparatus.
Wear full protective suit.**Protective equipment:****6 Accidental release measures****Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Ensure adequate ventilation

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).
Ensure adequate ventilation.**Additional information:**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:**Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.**Information about protection against explosions and fires:**Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Fumes can combine with air to form an explosive mixture.**Storage****Requirements to be met by storerooms and containers:**

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Further information about storage conditions:Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.**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:

Not required.

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Additional information:	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.
Protection of hands:	Check protective gloves prior to each use for their proper condition.
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. Impervious gloves
Penetration time of glove material	Not determined
Eye protection:	Safety glasses Face protection
Body protection:	Protective work clothing.

9 Physical and chemical properties:**General Information**

Form:	Liquid
Colour:	Colourless
Smell:	Aromatic
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	145°C
Sublimation temperature / start:	Not determined
Flash point:	47°C
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined
Steam pressure:	Not determined
Density at 20°C	1.43 g/cm³
Solubility in / Miscibility with Water:	Not miscible or difficult to mix

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
Materials to be avoided:	Oxidizing agents
Dangerous reactions:	No dangerous reactions known
Dangerous products of decomposition:	Carbon monoxide and carbon dioxide Hydrogen fluoride Hydrogen chloride (HCl)

11 Toxicological information

Acute toxicity:	
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. 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.
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:	3 (F1) Flammable liquids.
Kemler Number:	30
UN-Number:	1993
Packaging group:	III
Label	3
Designation of goods:	1993 FLAMMABLE LIQUID, N.O.S. (not viscous) (5-Chloro-2-fluorobenzotrifluoride)
Limited quantities (LQ)	LQ7
Transport category	3

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Tunnel restriction code D/E

Maritime transport IMDG/GGVSea:



IMDG/GGVSea Class: 3
 UN Number: 1993
 Label: 3
 Packaging group: III
 Marine pollutant: No
 Correct technical name: FLAMMABLE LIQUID, N.O.S. (5-Chloro-2-fluorobenzotrifluoride)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 3
 UN/ID Number: 1993
 Label: 3
 Packaging group: III
 Correct technical name: FLAMMABLE LIQUID, N.O.S. (5-Chloro-2-fluorobenzotrifluoride)

UN "Model Regulation": UN1993, FLAMMABLE LIQUID, N.O.S., 3, III

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



Xi Irritant

Risk phrases: 10 Flammable.
 36/37/38 Irritating to eyes, respiratory system and skin.

Safety phrases: 23 Do not breathe fumes.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 37 Wear suitable gloves.

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: 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

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