

1: Identification of substance / mixture

1. Product Identifier

Substance

Product Name **4-Chloro-3-nitrobenzotrifluoride**
 Product Code 004508
 CAS Number 121-17-5
 Other Names
 IUPAC
 MFCD Number MFCD00007084
 EC/EINECS 204-451-6
 REACH Number

2. Relevant identified uses of the substance or mixture and uses advised against

Research and Development

3. Details of the supplier of the safety data sheet

Fluorochem Ltd
 Unit 14, Graphite Way
 Hadfield
 Derbyshire
 SK13 1QH
 United Kingdom



Telephone: +44(0)1457 860111
 Fax number: +44(0)1457 892799
 Email: MSDS@fluorochem.co.uk

4. Emergency telephone number

07855 268577

2. Hazards Identification

1. Classification of the substance or mixture

H301	Acute Tox. 3	R25
H311	Acute Tox. 3	R24
H315	Skin Irrit. 2	R38
H319	Eye Irrit. 2	R36
H331	Acute Tox. 3	R23, R23
H335	STOT SE 3a	R37

* The risk codes have been generated using Annex VII of directive 67/548/EEC. Risk code combinations are not included.

2. Label elements

Signal Word **Danger**

Hazard Statements

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.

Precautionary Phrases

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

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P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3.Composition / Information on Ingredients

1. Substances

4-Chloro-3-nitrobenzotrifluoride

Assay:100% CAS Number :121-17-5

2. Mixtures

Not Relevant

4.First Aid Measures

1.Description of first aid measures

<i>Skin Contact</i>	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Transfer to hospital if there are burns or symptoms of poisoning. Wash immediately with plenty of soap and water.
<i>Eye Contact</i>	If eye irritation persists: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse opened eye for several minutes under running water. Transfer to hospital for specialist examination.
<i>Ingestion</i>	Transfer to hospital as soon as possible. Wash out mouth with water.
<i>Inhalation</i>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Supply fresh air; consult a doctor in case of complaints. Transfer to hospital as soon as possible.

2.Most important symptoms and effects

There may be pain and redness.

3.Indication of any immediate medical attention

No additional measures required

5.Firefighting measures

1.Extinguishing Media

<i>Suitable</i>	Carbon dioxide. Dry chemical powder. Water spray. fight larger fires with water jet or alcohol resistant foam
<i>Unsuitable</i>	no data

2.Special Hazards arising from the substance or mixture

In combustion toxic fumes may form.

3. Advice for Fire Fighters

Wear self-contained breathing apparatus.
Wear protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

1. Personal Precautions

Do not attempt to take action without suitable protective clothing – see section 8 of SDS.
Remove all incompatible materials as outlined in section 10 of SDS.
If outside keep bystanders upwind and away from danger point.

2. Environmental Precautions

Do not discharge into drains or rivers.
Contain the spillage using bunding.

3. Methods & Materials

Mix with sand or vermiculite.
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

7. Handling and Storage

1. Personal Precautions

<i>Safe Handling</i>	Ensure there is sufficient ventilation of the area. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
<i>Protection against explosions and fires</i>	Take off contaminated clothing and wash before reuse. normal measures for preventive fire protection

2. Conditions for safe storage, including any incompatibilities

<i>Managing Storage Risks</i>	Store in cool, well ventilated area. Keep container tightly closed.
<i>Storage Controls</i>	No special requirements
<i>Maintaining Integrity</i>	Keep container tightly closed. Store away from oxidising agents
<i>Other advice</i>	Store in a well-ventilated place.

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

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2.Exposure Controls

<i>General protective and hygiene measures</i>	Wear protective gloves/protective clothing/eye protection/face protection. . Wash hands during breaks and at the end of handling the material Immediately remove any contaminated clothing
<i>Engineering measures</i>	Use only outdoors or in a well-ventilated area.
<i>Eye / Face Protection</i>	Safety Glasses with side-shields.
<i>Hand protection</i>	Protective gloves.
<i>Respiratory protection</i>	Do not breathe dust/fume/gas/mist/vapours/spray. . Use breathing protection with high concentrations
<i>Skin protection</i>	Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands. Protective clothing.
<i>Other personal protection advice</i>	no data

9.Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	Clear yellow liquid
Odour	Not Applicable
Odour threshold	Not Applicable
PH	Not Applicable
Melting point / Freezing point	Not Applicable
Initial boiling point and boiling range	222°C
Flash point	115°C
Evaporation rate	Not Applicable
Flammability(solid,gas)	Not Applicable
Upper/lower flammability or explosive limits	Not Applicable
Vapour pressure	Not Applicable
Vapour density	Not Applicable
Relative density	1.511
Solubility(ies):	Not Applicable
Partition coefficient: n-octanol/water	Not Applicable
Auto-ignition temperature	Not Applicable
Decomposition temperature	Not Applicable
Viscosity	Not Applicable
Explosive properties	Not Applicable
Oxidising properties	Not Applicable

2.Other Information

No additional information available

10.Stability and Reactivity

1.Reactivity

no unusual reactivity

2.Stability

Stable under normal conditions.

3.Possibility of Hazardous Reactions

no hazardous reactions known

4.Conditions to Avoid

no specific conditions to avoid

5.Incompatible Materials

Oxidising agents.
Strong bases.

6.Hazardous Decomposition Products

In combustion emits toxic fumes.
In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
In combustion emits toxic fumes of nitrogen oxides.
In combustion emits toxic fumes of hydrogen chloride gas.
In combustion emits toxic fumes of hydrogen fluoride.

11.Toxicology information

1.Information

<i>Acute Toxicity</i>	Oral LD50 (Rat) 1,075mg/kg
<i>Skin corrosion/irritation</i>	irritant for skin and mucous membranes
<i>Serious eye Damage/irritation</i>	strong irritant effect
<i>Respiratory or skin sensitisation</i>	No sensitizing effect known
<i>Germ Cell mutagenicity</i>	not known
<i>Carcinogenicity</i>	not known
<i>Reproductive toxicity</i>	not known
<i>STOT-single exposure</i>	not known
<i>STOT-repeated exposure</i>	not known
<i>Aspiration hazard</i>	not known

2.Additional

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

1.Toxicity

not known

2.Persistence and degradability

not known

3. Bio-Accumulative Potential

not known

4. Mobility and Soil

not known

5. Results of PBT & vPvB assessment

not known

6. Other adverse effects

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations

Disposal of Packaging Disposal must be made according to official regulations.

14. Transport Information

Air (ICAO)

1. **UN Number:** 2307
2. **UN proper shipping name:** 3-Nitro-4-chlorobenzotrifluoride
3. **Transport hazard class(es):** Class: 6.1 Sub Class :



4. **Packing group:** II
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:**

Road (ADR)

1. **UN Number:** 2307
2. **UN proper shipping name:** 3-NITRO-4-CHLORO-BENZOTRIFLUORIDE
3. **Transport hazard class(es):** Class: 6.1 Sub Class :



4. **Packing group:** II
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:**

Sea (IMDG)

1. **UN Number:** 2307
2. **UN proper shipping name:** 3-Nitro-4-chlorobenzotrifluoride

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3. **Transport hazard class(es):** Class: 6.1 Sub Class :



4. **Packing group:** II

5. **Environmental hazards:** Marine Pollutant: Y

6. **Special Precautions for user:**

7. **Transport in bulk:** IBCINS: IBC02

UNTANKINS: T7
TANKPROV: TP2

15. Safety, health and environmental regulations

1. Safety, health and environmental regulations:

product is not subject to any additional regulations or provisions

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by road)

RID: Reglement 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

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the ICAO

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service

2. Associated risk phrases according to european directive 67/548/EEC

R23	Toxic by inhalation.
R24	Toxic in contact with skin.
R25	Toxic if swallowed.
R36	Irritating to eyes.
R37	Irritating to respiratory system.
R38	Irritating to skin.

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, 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.