# Thermo Fisher SCIENTIFIC

# SAFETY DATA SHEET

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Creation Date 16-Nov-2010
Revision Date 12-May-2024
Version 3

ALFAAA12242

# 4-Amino-3-chlorobenzotrifluoride

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

产品说明: 2-氯-4-(三氟甲基)苯胺

Product Description: 4-Amino-3-chlorobenzotrifluoride

 Cat No.:
 A12242

 CAS No
 39885-50-2

 Molecular Formula
 C7 H5 Cl F3 N

Supplier Avocado Research Chemicals Ltd.

(Part of Thermo Fisher Scientific)

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Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99 **CHEMTREC** Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887

E-mail address begel.sdsdesk@thermofisher.com

Recommended Use Laboratory chemicals.
Uses advised against No Information available

## **SECTION 2. HAZARD IDENTIFICATION**

Physical StateAppearanceOdorLiquidLight yellowNo information available

**Emergency Overview** 

Harmful if swallowed. Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation.

## Classification of the substance or mixture

Acute Oral Toxicity	Category 4
Acute Dermal Toxicity	Category 4
Acute Inhalation Toxicity - Vapors	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity - (single exposure)	Category 3

# **Label Elements**



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#### 4-Amino-3-chlorobenzotrifluoride

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#### Signal Word

#### Warning

#### **Hazard Statements**

- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H335 May cause respiratory irritation
- H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled

#### **Precautionary Statements**

#### Prevention

- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P264 Wash face, hands and any exposed skin thoroughly after handling
- P270 Do not eat, drink or smoke when using this product
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective gloves/protective clothing/eye protection/face protection

#### Response

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water
- P304 + P340 IF INHALED: Remove person to fresh air and keep 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
- P312 Call a POISON CENTER or doctor if you feel unwell
- P330 Rinse mouth
- P361 + P364 Take off immediately all contaminated clothing and wash it before reuse

#### Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

#### Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

## **Physical and Chemical Hazards**

None identified.

#### **Health Hazards**

Harmful if swallowed. Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation.

#### **Environmental hazards**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants. Will likely be mobile in the environment due to its volatility. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

This product does not contain any known or suspected endocrine disruptors.

## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS No	Weight %		
2-Chloro-4-trifluoromethylaniline	39885-50-2	> 97		

## **SECTION 4. FIRST AID MEASURES**

#### **General Advice**

If symptoms persist, call a physician.

#### Eve Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

#### **Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

#### Inhalation

Remove to fresh air. Get medical attention immediately if symptoms occur. If not breathing, give artificial respiration.

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# 4-Amino-3-chlorobenzotrifluoride

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# Ingestion

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

## Most important symptoms and effects

None reasonably foreseeable.

#### Self-Protection of the First Aider

Use personal protective equipment as required.

## **Notes to Physician**

Treat symptomatically.

# **SECTION 5. FIRE-FIGHTING MEASURES**

## **Suitable Extinguishing Media**

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

## Extinguishing media which must not be used for safety reasons

No information available.

## **Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors.

## **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

## **Personal Precautions**

Use personal protective equipment as required. Ensure adequate ventilation.

## **Environmental Precautions**

Should not be released into the environment. See Section 12 for additional Ecological Information.

# Methods for Containment and Clean Up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7. HANDLING AND STORAGE**

#### Handling

Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation.

#### Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

# Specific Use(s)

Use in laboratories

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

## **Control Parameters**

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## **Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS70 General methods for sampling airborne gases and vapours MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

#### **Exposure Controls**

#### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

#### Personal protective equipment

**Eye Protection** Goggles (European standard - EN 166)

Hand Protection Protective gloves

Glove material		Glove thickness	EU standard	Glove comments
Natural rubber Nitrile rubber	See manufacturers	-	EN 374	(minimum requirement)
Neoprene	recommendations			
PVC				

Inspect gloves before use.

**Hygiene Measures** 

**Environmental exposure controls** 

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection	Long sleeved clothing
Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced <b>Recommended Filter type:</b> Particulates filter conforming to EN 143 Ammonia and organic ammonia derivatives filter Type K Green conforming to EN14387
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.  Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141  When RPE is used a face piece Fit Test should be conducted

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

No information available.

Handle in accordance with good industrial hygiene and safety practice.

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#### 4-Amino-3-chlorobenzotrifluoride

**Appearance** Light yellow **Physical State** Liquid

No information available Odor No data available **Odor Threshold** No information available рΗ Melting Point/Range No data available **Softening Point** No data available

89 °C / 192.2 °F **Boiling Point/Range** 

@ 0.5 mmHg Method - No information available Flash Point No information available

No data available **Evaporation Rate** Flammability (solid,gas) Not applicable Liquid

**Explosion Limits** No data available

**Vapor Pressure** No data available

No data available **Vapor Density** (Air = 1.0)

Specific Gravity / Density No data available **Bulk Density** Not applicable

**Water Solubility** No information available No information available Solubility in other solvents

Partition Coefficient (n-octanol/water)

**Autoignition Temperature** No data available **Decomposition Temperature** No data available **Viscosity** No data available **Explosive Properties** No information available **Oxidizing Properties** No information available

C7 H5 CI F3 N **Molecular Formula** 

**Molecular Weight** 195.57

# **SECTION 10. STABILITY AND REACTIVITY**

Liquid

Stability Stable under normal conditions.

**Hazardous Reactions** None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid** Incompatible products. Excess heat.

Materials to avoid Strong oxidizing agents. Strong acids.

Hazardous Decomposition Products Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO2). Hydrogen fluoride.

Hydrogen chloride gas.

# **SECTION 11. TOXICOLOGICAL INFORMATION**

**Product Information** 

(a) acute toxicity;

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;

Respiratory No data available Skin No data available

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(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; Category 3

Results / Target organs Respiratory system

No data available (i) STOT-repeated exposure;

No information available. **Target Organs** 

(j) aspiration hazard; No data available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

Symptoms / effects,both acute and No information available

delayed

# **SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity effects** Contains no substances known to be hazardous to the environment or that are not

degradable in waste water treatment plants.

Persistence and Degradability

**Persistence** 

No information available

Persistence is unlikely, based on information available.

**Bioaccumulative Potential** Bioaccumulation is unlikely

The product contains volatile organic compounds (VOC) which will evaporate easily from all Mobility in soil

surfaces Will likely be mobile in the environment due to its volatility Disperses rapidly in air

**Endocrine Disruptor Information** 

**Persistent Organic Pollutant Ozone Depletion Potential** 

This product does not contain any known or suspected endocrine disruptors

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

# **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste from Residues/Unused

**Products** 

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated Packaging** Dispose of this container to hazardous or special waste collection point.

Waste codes should be assigned by the user based on the application for which the product Other Information

was used. Do not empty into drains.

## **SECTION 14. TRANSPORT INFORMATION**

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## 4-Amino-3-chlorobenzotrifluoride

Road and Rail Transport

UN-No UN2810

Proper Shipping Name Toxic liquid, organic, n.o.s.

Hazard Class 6.1 Packing Group III

IMDG/IMO

**UN-No** UN2810

Proper Shipping Name Toxic liquid, organic, n.o.s.

Hazard Class 6.1
Packing Group III

IATA

**UN-No** UN2810

**Proper Shipping Name** Toxic liquid, organic, n.o.s.

Hazard Class 6.1 Packing Group III

Special Precautions for User No special precautions required

# **SECTION 15. REGULATORY INFORMATION**

#### **International Inventories**

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ISHL), Australia (AICS), Korea (KECL).

	The Inventory of Hazardous Chemicals (2015 Edition)		TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
2-Chloro-4-trifluoromet		-	Х	-	254-674-8	-	-	-	Х	Х	-	-

# **National Regulations**

# **SECTION 16. OTHER INFORMATION**

Prepared By Health, Safety and Environmental Department

**Creation Date** 16-Nov-2010 **Revision Date** 12-May-2024

**Revision Summary** New emergency telephone response service provider.

**Training Advice** 

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

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#### Legend

**CAS** - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances **IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

Substances List

**ENCS** - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association** 

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

MARPOL - International Convention for the Prevention of Pollution from

Ships

ATE - Acute Toxicity Estimate VOC - (Volatile Organic Compound)

#### Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

#### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**