

# **SAFETY DATA SHEET**

Revision Date 01-September-2023

**Revision Number** 3

# 1. Identification

Product Name tert-Butyl 4-(aminocarbonyl)tetrahydropyridine-1(2H)-carboxylate

Cat No.: TL00951DA; TL00951EA; TL00951EB; TL00951SC; TL00951ZZ

Synonyms No information available

Recommended Use Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

### Details of the supplier of the safety data sheet

Company

Importer/Distributor
Fisher Scientific
One Reagent Lane
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410

Canada

Tel: 1-800-234-7437

#### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 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

# 2. Hazard(s) identification

Classification

WHMIS 2015 Classification Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

Skin Corrosion/IrritationCategory 2Serious Eye Damage/Eye IrritationCategory 2

**Label Elements** 

Signal Word Warning

**Hazard Statements** 

Causes skin irritation
Causes serious eye irritation



#### **Precautionary Statements**

#### Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection

#### Response

IF ON SKIN: Wash with plenty of soap and water

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If skin irritation occurs: Get medical advice/attention If eye irritation persists: Get medical advice/attention Take off contaminated clothing and wash it before reuse

#### **Disposal**

Dispose of contents/container to an approved waste disposal plant

# 3. Composition/Information on Ingredients

Component	CAS-No	Weight %
tert-Butyl	91419-48-6	97
4-(aminocarbonyl)tetrahydropyridine-1(2H)-carboxyl		
ate		

# 4. First-aid measures

**General Advice** If symptoms persist, call a physician.

Eye 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. If skin irritation persists,

call a physician.

**Inhalation** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if

symptoms occur.

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

symptoms occur.

Most important symptoms/effects

Notes to Physician

None reasonably foreseeable.

Treat symptomatically

# 5. Fire-fighting measures

Suitable Extinguishing Media Water spray. Carbon dioxide (CO2). Dry chemical. Chemical foam.

Unsuitable Extinguishing Media No information available

# tert-Butvl 4-(aminocarbonyl)tetrahydropyridine-1(2H)-carboxylat

**Flash Point** No information available Method -No information available

**Autoignition Temperature** 

**Explosion Limits** 

No information available

Upper No data available Lower No data available Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available

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

Keep product and empty container away from heat and sources of ignition.

### **Hazardous Combustion Products**

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO2). Fumes.

### **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.

NFPA

Health **Flammability** Instability Physical hazards 2 1 0 N/A

### Accidental release measures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust

formation.

**Environmental Precautions** Should not be released into the environment. See Section 12 for additional Ecological

Information.

Methods for Containment and Clean Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed Uρ

containers for disposal.

7. Handling and storage

Avoid ingestion and inhalation. Wear personal protective equipment/face protection. Ensure Handling

adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid dust formation.

Storage. Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible

Materials. Acids. Bases. Amines. Acid chlorides. Reducing Agent.

8. Exposure controls / personal protection

This product does not contain any hazardous materials with occupational exposure **Exposure Guidelines** 

limitsestablished by the region specific regulatory bodies.

**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

**Eve Protection** Wear safety glasses with side shields (or goggles) Goggles

**Hand Protection** Protective gloves

Glove material	Breakthrough time	Glove thickness	Glove comments
Nitrile rubber	See manufacturers	-	Splash protection only
Neoprene	recommendations		
Natural rubber			
PVC			

Inspect gloves before use, observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) 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. gloves with care avoiding skin contamination.

### **Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly Recommended Filter type: Particulates filter conforming to EN 143

When RPE is used a face piece Fit Test should be conducted

### **Environmental exposure controls**

No information available.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

### 9. Physical and chemical properties

**Physical State** Solid **Appearance** White

Odor No information available **Odor Threshold** No information available рΗ No information available

Melting Point/Range 163 - 164 °C / 325.4 - 327.2 °F

**Boiling Point/Range** No information available Flash Point No information available

**Evaporation Rate** Not applicable

Flammability (solid,gas) No information available

Flammability or explosive limits

No data available Upper No data available Lower **Vapor Pressure** No information available

**Vapor Density** Not applicable

**Specific Gravity** No information available Solubility No information available Partition coefficient; n-octanol/water No data available

**Autoignition Temperature** No information available **Decomposition Temperature** No information available

**Viscosity** Not applicable C11 H20 N2 O3 Molecular Formula

**Molecular Weight** 228.29

# 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

# tert-Butyl 4-(aminocarbonyl)tetrahydropyridine-1(2H)-carboxylat

е

**Stability** Stable under normal conditions.

Conditions to Avoid Incompatible products.

Incompatible Materials Acids, Bases, Amines, Acid chlorides, Reducing Agent

Hazardous Decomposition Products Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2), Fumes

**Hazardous Polymerization**No information available.

**Hazardous Reactions** None under normal processing.

# 11. Toxicological information

**Acute Toxicity** 

Product Information No acute toxicity information is available for this product

Component Information

Toxicologically Synergistic No information available

**Products** 

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
tert-Butyl	91419-48-6	Not listed				
4-(aminocarbonyl)tetra						
hydropyridine-1(2H)-ca						
rboxylate						

Mutagenic Effects No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

STOT - single exposure None known
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and No information available

delayed

Endocrine Disruptor Information No information available

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

# 12. Ecological information

**Ecotoxicity** 

Do not empty into drains.

Persistence and Degradability Insoluble in water

е

**Bioaccumulation/ Accumulation**No information available.

**Mobility** Is not likely mobile in the environment due its low water solubility.

# 13. Disposal considerations

**Waste Disposal Methods** 

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

	14. Transport information
DOT	Not regulated
DOT TDG IATA	Not regulated
<u>IATA</u>	Not regulated
IMDG/IMO	Not regulated
	15. Regulatory information

#### International Inventories

Component	CAS-No	DSL	NDSL	TSCA	TSCA Inventory notification - Active-Inactive	EINECS	ELINCS	NLP
tert-Butyl	91419-48-6	-	-	-	-	-	-	-
4-(aminocarbonyl)tetrahydropyridi								l
ne-1(2H)-carboxylate								l

Component	CAS-No	IECSC	KECL	ENCS	ISHL	TCSI	AICS	NZIoC	PICCS
tert-Butyl	91419-48-6	-	-	-	-	-	-	-	-
4-(aminocarbonyl)tetrahydropyridi									
ne-1(2H)-carboxylate									

### Legend:

X - Listed '-' - Not Listed

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

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

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

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

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

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

#### Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

### Other International Regulations

Authorisation/Restrictions according to EU REACH Not applicable

### Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS-No	OECD HPV	Persistent Organic	Ozone Depletion	Restriction of
			Pollutant	Potential	Hazardous

# tert-Butyl 4-(aminocarbonyl)tetrahydropyridine-1(2H)-carboxylat

е

					Substances (RoHS)
tert-Butyl 4-(aminocarbonyl)tetrahydrop yridine-1(2H)-carboxylate	91419-48-6	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS-No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
tert-Butyl 4-(aminocarbonyl)tetrahydrop yridine-1(2H)-carboxylate	91419-48-6	Not applicable	Not applicable	Not applicable	Not applicable

# 16. Other information

Prepared By Regulatory Affairs

Thermo Fisher Scientific

Email: EMSDS.RA@thermofisher.com

Revision Date 01-September-2023 Print Date 01-September-2023

**Revision Summary**This document has been updated to comply with the requirements of WHMIS 2015 to align

with the Globally Harmonised System (GHS) for the Classification and Labelling of

Chemicals.

#### **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 SDS**